PB-241 188

NATIONAL ENVIRONMENTAL MANPOWER PLANNING CONFERENCE HELD IN PHOENIX, ARIZONA ON DECEMBER 8, 9, 10 AND 11, 1974

ENVIRONMENTAL CAREER CENTER, INCORPORATED

PREPARED FOR
ENVIRONMENTAL PROTECTION AGENCY

DECEMBER 1974

DISTRIBUTED BY:

NTIS
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U. S. DEPARTMENT OF COMMERCE

BIBLIOGRAPHIC DATA SHEET

1. Report No.

2.

PB 241 188

4. Title and Subtitle
National Environmental Manpower Planning Conference in Phoenix, Arizona, December 8, 9, 10 and 11, 1974.

5. Report Date
Dec. 8 - 11, 1974

6.

7. Author(s)

8. Performing Organization Rept. No.

9. Performing Organization Name and Address
Environmental Career Center, Inc., Washington, D. C.

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address
Environmental Protection Agency, Office of Education and Manpower Planning, Washington, D. C. 20460.

13. Type of Report & Period Covered

14.

15. Supplementary Notes

16. Abstracts

The National Environmental Manpower Planning Conference was held in Phoenix, Arizona, on December 8-11, 1974 in an effort to assist State and local environmental agencies in meeting environmental manpower and training needs generated by the delegated responsibilities to carry out environmental programs mandated by Federal Legislation. Planned and conducted by the Office of Education and Manpower Planning, Office of Planning and Management, U. S. Environmental Protection Agency, in cooperation with the Arizona State Department of Health, the Conference provided the participants with an excellent opportunity to share information and take part in meaningful dialogue aimed at acquainting each with available resources and Federal/State activities regarding the development and utilization of an environmental workforce.

17. Key Words and Document Analysis. 17a. Descriptors
environmental programs
manpower planning
training requirements.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

Reproduced by
NATIONAL TECHNICAL
INFORMATION SERVICE
US Department of Commerce
Springfield, VA. 22151

PRICES SUBJECT TO CHANGE

18. Availability Statement
Available from NTIS

i

19. Security Class (This Report)
UNCLASSIFIED

20. Security Class (This Page
UNCLASSIFIED

21. No. of Pages
184

22. Price
7.00/2.25

NATIONAL ENVIRONMENTAL MANPOWER PLANNING CONFERENCE

IN

Phoenix, Arizona

December 8, 9, 10 and 11, 1974

SPONSORED BY

Office of Education and Manpower Planning
Environmental Protection Agency
Washington, D.C.

COORDINATED BY

Environmental Career Center, Inc.
Washington, D.C.

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All scheduled speakers were given an opportunity to review and edit their respective remarks. This was done in an attempt to correct the misspellings of individuals names and technical terms, since the steno reporters were unfamiliar with the various environmental fields. All speakers were asked not to make any major changes in the text of their comments. It was necessary to further edit some of the speakers comments in order to provide an overall uniformity to the final transcript.

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PREFACE

The National Environmental Manpower Planning Conference was held in Phoenix, Arizona on December 8-11, 1974 in an effort to assist State and local environmental agencies in meeting environmental manpower and training needs generated by the delegated responsibilities to carry out environmental programs mandated by Federal Legislation. Planned and conducted by the Office of Education and Manpower Planning, Office of Planning and Management, U.S. Environmental Protection Agency, in cooperation with the Arizona State Department of Health, the Conference provided the participants with an excellent opportunity to share information and take part in meaningful dialogue aimed at acquainting each with available resources and Federal/State activities regarding the development and utilization of an environmental workforce.

Invitations were sent to over 300 persons; the 200 participants and 48 speakers represented the full range of Federal, State, local and private agencies, as well as professional associations, universities, colleges, community and junior colleges and vocational technical schools all with interests in environmental manpower development and training. The majority of the attendees were senior level policy making officials within their respective organizations.

Each session included individual speakers and/or panels with prepared remarks which addressed specific items relating to major environmental programs and the implications of those as they relate to the quantity and quality of the present workforce engaged in environmental protection services. Needs, resources and problem areas were considered both in the presentations and the question and answer periods which followed each session. Audience participation reflected the serious nature of the Conference while the comments, opinions and suggestions of the participants proved invaluable in moving toward finding solutions to problems of both a general and specific nature.

The response received from the participants indicated that there should be annual conferences of this nature, as it proved to be a worthwhile experience in terms of providing the open forum for exchange of information, problem solving and general advancement of the state of the art of environmental manpower development and training which is critical to accomplishment of legislated environmental program requirements.

GENERAL SESSION

James D. Goff, Moderator
Arizona Department of Health Services

Welcome
by
Arthur Vondrick
City of Phoenix

Goals of Conference
by
Alvin L. Alm
Environmental Protection Agency

Opening Address
by
Clyde D. Eller
Environmental Protection Agency

GENERAL SESSION

JAMES D. GOFF, Panel Moderator

- - -

MR. GOFF: Good morning, ladies and gentlemen. It is my pleasure to serve as moderator for the opening session. For those of you who do not know me, my name is Jim Goff, now residing in Phoenix and serving as Assistant Director of the Arizona Department of Health Services. We are pleased to serve as your Phoenix hosts. My staff and I are available throughout your stay to assist you in any way possible. The Valley of the Sun offers many interesting places to visit, shop and just plain have fun.

At this time, I would like to introduce Mr. Art Vondrick, Director of Water and Sewers Administration for the City of Phoenix, representing your host city, who will welcome you.

MR. VONDRICK: Thank you, Jim. Good morning everybody. I hope you all got up to see our sun this morning. How does it look? Any different? At least, you could see it. Right?

Obviously, the first words I should utter here today are: Welcome to Phoenix and the Valley of the Sun. I've looked forward with some anticipation to this occasion, because this affords me the opportunity to repay some of you for very similar courtesies that you've extended to me in the past when I was doing some traveling, and that's another way of saying getting even with you.

I'm glad to see Sam Warrington here from Texas. How can you have a training program, a meeting, without good old Sam? When I went to Texas a couple of years back, Sam took me to a place called Snook - that was a place in Texas.

Sam, we have a place here that's something like Snook, but we call it Cave Creek. It's just like Snook almost; only the people in Cave Creek don't like Texans, so in case you go up there, keep that in mind.

When I was in Georgia a couple of years ago, someone took me to Atlanta Underground once, and what happens in Atlanta Underground at night happens here in Scottsdale at the Fifth Avenue shops in the daytime, and if your wife wants to go there, please relieve her of all her credit cards first.

Speaking of Scottsdale, which is the West's most western town, you should be aware while you're here that horses have the right-of-way. If you get in trouble with a horse, don't come to me to get your ticket fixed. Can't do it. Jim might be able to, but I can't do it.

When I was in Montana, I was taught to ask for a Bourbon and ditch which turned out to be Bourbon and water. In the South, I was taught to ask for Bourbon and branch water which also turned out to be Bourbon and water. The nearest I've been able to figure out all by myself is that branch water is the clear, cool, clean sparkling water from a branch of the main stream which is likely to be polluted, and I thought a ditch perhaps had a same connotation in Montana, because in Montana, they brag that all water starts in Montana, and there ain't no such thing as dirty water, so if I can get you two guys together today, I'd appreciate that.

But no matter where you go - North, South, East or West - all the supermarkets you know carry labels on their products that say, "Just add water and serve."

What kind of water is that in Montana or Georgia or Alabama, I asked myself. I don't know, so I kind of need your help. I hope you gentlemen and ladies that don't have that kind of trouble in communicating with yourselves in any of your sessions here, but maybe I do hope you have a little trouble communicating, because that makes life interesting and keeps you alert, and that way the speakers will have someone to talk to.

Now, if the instructors and the program leaders can't communicate, it leaves very little hope for the students.

Now, you'll find a lot to do here in your spare time I'm sure - if you have any. Are they going to have any spare time, Jim? No/ No spare time.

You're going to have a good time probably because of our weather. The Chamber of Commerce has a slogan that says, "Come to Phoenix and play golf in the seventies." That's not strokes - that's Fahrenheit.

And, as you might guess, the Chamber of Commerce is against the metric system unless someone can come up with a way of counting golf strokes in meters or liters or in metric tons or something. Maybe you can solve that while you're here, too.

Now, during your stay here, we encourage you to drink water, along with any other beverage that you may prefer, whether it be coffee or tea or soda pop or fruit juice or whatever. The water tastes good standing alone, on its own merits, or diluted by other liquids or solids that you may run into from time to time.

Our water is also safe, and I say this not because we have a relatively uncivilized water shed or that our laboratories are certified or because we have a reputation for conducting our affairs in a businesslike manner, but also because we passed the McCall's Magazine test as well as a self-imposed examination that was sent to us by Ralph Nader.

We try to conduct our wastewater activities in much the same fashion. As you may or may not know, Phoenix and all the Valley cities here are involved in what we call a Multi-City Sewerage Plan. We sell all our effluent from our two activated sludge plants.

I might add that our system is so simple and effective and uncomplicated that sometimes EPA has trouble understanding it, but the effluent that we have that is not actually reused at the present time is undercontract for future use and is paid for under an option agreement, so when I encourage you to drink water, I have a double purpose in mind. I'd like to encourage you to use the plumbing facilities often. In fact, it wouldn't hurt if each of you, each morning, would give it a couple of more flushes for good measure. Now, maybe I shouldn't have said that. If the news media is present, and considering the nature of this meeting, I can just see the headlines: "Vondrick Gives A Lesson In Toilet Training."

But, we do believe in training of all kinds, because it works, and I'm sure Jim Goff and his staff have made ample provision for you to take care of your every want while you're in town and to satisfy all of your needs while you're with us, but let me add my own offer.

In the event you get lost while you're here, please call Jim Goff. But, if you have a desire to GET lost, please don't hesitate to call me. I am known to be an acknowledged expert at that. All kinds of people always keep telling me to get lost anyway. I hope you have a wonderful conference, and I'll be seeing you later on through the meeting.

MR. GOFF: Here with us this morning to relate the goals of the conference is Mr. Alvin Alm, the Assistant Administrator for Planning and Management with the Environmental Protection Agency in the Washington Headquarters Office.

In this position since July 1973, Mr. Alm is responsible for Agency evaluation of programs, standards and regulations and policies. He is also in charge of resources management, including planning, budgeting and progress reporting and many other related activities.

From 1970 to 1973, Mr. Alm was Staff Director for Program Development with the Council on Environmental Quality, where he supervised most of the professional staff of CEQ.

His responsibilities include staff coordination of legislative and administrative initiatives, preparation of CEQ annual reports, management of the study program and oversight of the impact of federal programs.

Prior to that time, he was with the U.S. Bureau of Budget, now the Office of Management and Budget, for seven years as a budget examiner.

From 1961 to 1963, Mr. Alm served as a management intern and contract administrator with the U.S. Atomic Energy Commission.

He received his B.A. degree from the University of Denver in 1960, and his Masters of Public Administration degree from Syracuse University in 1961. Now, it is my pleasure to present to you Mr. Alvin Alm.

MR. ALM: Mr. Goff, Mr. Vondrick, ladies and gentlemen, I am delighted to be here at this conference. I must say that Mr. Vondrick is going to be a hard act to follow.

I'm going to try to make my remarks relatively brief. I'm reminded of Will Rogers' comment that, "No speech can be completely bad, if it's short."

I'll begin briefly talking about my perceptions of how the environmental movement has developed, and discuss a few of the major programs directed at actually achieving our environmental objectives.

Water pollution programs tend to be our oldest environmental programs, some of them dating back to the 19th Century. But it wasn't until recent years that the Congress enacted demanding statutory deadlines, detailed statutory requirements, and greatly increased funding.

In the Clean Air Act, you have somewhat the same situation. That Act established statutory deadlines for achievement of ambient air quality standards, specific limitations for automotive pollutants, and a requirement that States develop implementation plans to achieve the national ambient air quality standards.

In the noise pollution area, there was no national legislation until 1972 with the Noise Control Act.

In 1972 also there were major amendments to the FIFRA, the Federal Insecticide, Fungicide, and Rodenticide Act. These amendments for the first time focused on the use of pesticides and on programs for certification of applicators.

The legislative framework for this legislation grew out of the concerns expressed most dramatically in the first Earth Week in the spring of 1970. These concerns grew from a national consensus that pollution needed to be controlled, and that to do so, the Nation needed to set very firm deadlines and very specific programs for control.

It is certainly desirable to set national policy through clear-cut national goals. On the other hand, the mandating of goals does not necessarily mandate success. We're finding in the implementation of all of these laws, especially the Water Pollution Control Act, and to a lesser extent, the Clean Air Act, a number of very difficult practical bottlenecks.

Some of these include the need to develop adequate technology to achieve the goals. In other cases, pollution control expenditures will place a significant burden in certain areas of the country or in certain industries. We have a great deal of management inertia to overcome, at the Federal level and at the State and local levels, as well as the private sector.

We're all being asked to do things differently. And we're being asked to do them in a very short period of time.

And, finally, there was not full consideration given, in these various legislative enactments, to the manpower requirements. This is what I wanted to basically focus on: the manpower requirements to meet our environmental goals.

Some have argued that we merely need to pass environmental control laws and then the market will react and somehow the trained manpower will readily appear. I don't agree with this view. While the manpower will ultimately be available, this will take a great deal of time. This time can be very expensive, especially considering the very major investments society is making in water pollution control, air pollution control, solid waste, and the like. Trained manpower is necessary to achieve our environmental goals in the most cost-effective manner. In some cases, as in the pesticides program, we won't achieve our goals at all unless we have adequate training programs.

Traditionally, EPA and its predecessor agencies have had a number of tools to provide manpower training. We have conducted direct training programs, as you all know, which are currently in the process of being phased out over the next few years.

Another mechanism for training is assistance through State program grants. EPA is making a major effort to increase the support for our State and local air and water pollution program grants.

We have conducted a number of programs with direct EPA training of sewage treatment operators.

And, finally, we've used MDTA and other Federal programs, such as DOD's Project Transition, to greatly augment our training activities.

The most critical training needs are in the water pollution area. The 1972 Federal Water Pollution Control Act amendments require permits for all municipal and industrial discharges, a greatly increased funding level, a nationwide compliance monitoring system: the list could go on and on.

The point is simply this: we're going to have to have trained manpower if we're going to fully meet these legislative goals. In many respects, we have not yet faced the really tough challenges. The 1977 statutory deadline assumes a greatly increased number of personnel to operate treatment plants, assure compliance, and the like.

Since 1969, the EPA has been cooperating with the Department of Labor on several interagency agreements. These agreements have been extremely important in expanding the supply of trained manpower.

In the spring of 1973, EPA agreed with Labor to begin to disengage from these categorical programs and participate in the Comprehensive Employment and Training Act (CETA).

Initially, I think all of us faced this new program with a certain amount of trepidation. We had grown accustomed to a categorical program, in which we knew clearly how much money was available. With CETA, we are now required to compete with other programs. But, actually CETA has been extremely successful from EPA's point of view. Already $15 million has been tapped by prime sponsors for environmental programs.

For example, through Bob Knox's efforts, $4 million has become available for environmental training in EPA's Region II.

Some of the States have been very successful. Chris Beck, Deputy Commissioner for Connecticut's environmental agency, has been successful in attaining $1.5 million for training within Connecticut.

The purpose of this Conference is to provide a forum for information on how these programs work and what the possibilities are for environmental training. Others on the program will obviously discuss these programs in much greater detail.

I merely wish to impart to you my sense of the importance of this activity. I plan, after the meeting, to get a summary of the meeting and to provide it to the Administrator. I think it's important he be fully aware of this effort. As you know, he has sent out letters to each Governor and Mayor as CETA prime sponsors urging greater efforts in using CETA funds for environmental training. Our Regional Administrators will follow up Mr. Train's letter with letters to each public works director.

The next new year is going to be a real testing ground whether we can actually achieve the very comprehensive goals that the Congress has set for us.

Often we think only of the environmental issues as those receiving current attention, such as the potential conflicts between environmental requirements and the energy crisis or economic problems. I believe, however, these issues are really ephemeral compared with the central management issue. The real challenge is whether EPA, the States and local governments have the management capacity to make these programs work. Manpower is a very key ingredient and it must have a very high priority in our efforts to achieve our environmental objectives.

I appreciate this opportunity to speak to you. I think the Conference has been extremely well-designed and I am impressed with the representation. I wish all of you the best of luck. Thank you.

MR. GOFF: Next on our program this morning is Mr. Clyde D. Eller, representing Mr. Paul DeFalco, Jr., Region IX, EPA Administrator, who was unable to be with us today.

Mr. Eller is the Director of the Surveillance and Analysis Division of EPA's Region IX, with offices in San Francisco. This Region covers the States of Arizona, California, Hawaii and Nevada, and the Islands of the Pacific.

Prior to his appointment in his present job, on November the 1st, 1974, Mr. Eller had served the Regional EPA Office as the Director of the Categorical Programs Division and as Deputy Director of the Air and Water Programs Division.

Previous to the creation of EPA in December 1970, Mr. Eller was with the U.S. Public Health Service, with regional offices both in San Francisco and Cincinnati. Before going with the Federal Government, he worked for a number of years in local and state health departments.

Mr. Eller has a B.S. degree in Engineering from Iowa State University, obtained in 1942, and a Masters of Public Health from the University of Michigan, obtained in 1947. He has been a member of a number of professional organizations, including the American Public Health Association and the Conference of Local Health Environmental Administrators.

He was responsible for the development of the Public Health Service Manual on Environmental Health Planning. Mr. Eller, we appreciate you being with us today.

MR. ELLER: Mr. Goff, Mr. Vondrick, Mr. Alm, ladies and gentlemen, I'd like to add Region IX's welcome.

A quick scanning of the topics on the program indicates that this Environmental Manpower Planning Conference hopefully will bring us some practical answers to problems we are all well aware of, problems concerning the need to provide sufficient numbers of well-trained personnel to carry out our environmental programs.

Manpower needs in environmental protection are urgent needs and represent severe deficiencies. These needs must be met through combined Federal, State and local efforts.

As you recall, 1970 was hailed as the year of the environment and was the peak of public expression about how our resources were being badly managed. The decade of the sixties saw a slow but distinct build-up to the fervor of the 1970's, and this fervor was evidenced in the passage of several environmental laws that Mr. Alm has described, and evidenced particularly in the acceleration of Federal funding of wastewater treatment facilities.

Spending more and more money at both the Federal and local levels obviously called for better facilities planning. However, in the area of planning, the government was caught short. Basic planning at the Federal level represented some of the first efforts and pointed up the need for more local involvement in planning and commitment to its implementation.

The whole planning process went through a process of evolution, so that today, with state leadership and much local input in plan development, we now hope to witness significant progress.

In spite of this tremendous thrust forward made in environmental planning at the State and local levels, there remains a planning element inadequately covered in the overall planning process, and that's the area of manpower planning.

Manpower planning, as we're all aware, is as important a plan element as any other in the closely connected scheme to get the job done, and we need to stress this no further.

At the professional manpower development level, the Federal Government has provided scholarships and training grants to train hundreds of people who are now assuming lead roles in environmental jobs. This has been a high accomplishment, and while there is much support within EPA today to continue this academic support, it's doubtful that the Federal Government will be able to continue in this program beyond June of 1976.

At the subprofessional level, we in EPA have had to depend primarily on the Department of Labor Manpower Development and Training Act, MDTA funds, for training water works and waste treatment plant operators and, more recently, landfill operators, vehicle inspectors, instrument technicians and pesticide applicators.

I think we all agree that there have been some excellent training programs in these fields. So, with the passing of MDTA and what appears to be little funding directly available through EPA authorizations, we must look to other funding sources, and this is the main theme of our Conference.

MDTA included a collection of various categorical programs that were administered in a highly centralized manner at the Federal level. The subprofessional training activities which EPA carried on with limited MDTA funds were not intended of course to meet our massive environmental training needs. Rather, these programs were really designed to develop State and local training capabilities to the point where most jurisdictions could have an ongoing environmental training delivery system.

The commitment of the states to environmental manpower development will increase in direct proportion to the implementation schedules of Federal and State environmental compliance requirements. The precedent set by EPA in utilizing human resource funds, coupled with the relative success of the MDTA on-the-job training programs lends validity to the EPA's desire to continue this training effort.

On December 28th, 1973, the President signed the Comprehensive Employment and Training Act, CETA; the enactment of this legislation was the culmination of a three-year administration effort to achieve comprehensive manpower reform.

Since the President vetoed the Employment and Manpower Act of 1970, no other manpower proposal has advanced beyond Congressional Committee levels.

CETA is now the principal legislative vehicle for support of federally assisted manpower programs, replacing the Manpower Development and Training Act of 1962.

Essentially, the law provides for special revenue sharing with Federal funds going directly to more than 500 State and local governmental jurisdictions. This represents a considerable degree of manpower program decentralization and decategorization. Although the law provides for certain national programs to be retained at the Federal level, the bulk of available funds will go to the 500 prime sponsors as block grants for a wide array of manpower services tailored to community needs.

Since manpower revenue sharing is a relatively new concept, especially in the area of environmental manpower, the State and local environmental agencies may be uncertain of the potential impact it could have in their individual situations and it should be a goal of our Conference to seek out such a possible avenue of funding tailored to fit community needs.

Other avenues of funding will also be discussed here, such as vocational and adult education sources and the agency grant mechanism. Decentralization and decategorization are the key words of these times. The Federal Government will not be able to provide direct contracts and grants for education and training to the degree that it did in the past.

EPA's role will be to stress and technically aid the planning process, provide policy guidance and offer staff expertise in its own area of competence. Not being able to directly provide money for training and manpower development, EPA will assume a catalytic role. We are not lessening our efforts to obtain financial support in Congress to carry out a more effective training program but in this era of inflation and tight money, we must be much more creative and look to available alternatives to get the job done.

Let me mention certain specific manpower needs which should be considered at this time. (1) The training of water and wastewater treatment plant operators at both the entry and the upgrade level. (2) Training of instrument technicians involved with ambient air quality monotoring and training of vehicle inspectors for mobile source control. (3) The training of sanitary landfill operators and others handling and disposing of solid and liquid hazardous waste. (4) Training of pesticide users at various levels of application. (5) Training of noise monitoring technicians and inspectors. (6) The training of emergency response personnel who would be involved with nuclear accidents. There are many others, of course.

Returning to these manpower needs in somewhat more detail, the manpower needs in water pollution control are expected to increase greatly in the years ahead.

Specifically, the Federal Water Pollution Control Act of 1972 resulted in appropriations of $2, $3 and $4 billion for fiscal years 1973, 74 and 75 for construction of facilities. Obligations from this and other authorizations are running between $2.5 and $3.0 billion yearly.

In a recent EPA report to the Congress on water pollution control and on the manpower development and training activities, it stated that even with a vigorous program of construction of new plants, waste may not be treated at planned levels due in part to shortages of well-trained personnel.

This need for increasing numbers in the work force will result in specific demands for both entry-level and upgraded training. In order to meet this demand for trained manpower, increased operator training programs both in the classroom and on-the-job will be needed.

The need is not only to take care of new plants but also for improving the effectiveness of existing personnel in plants with operation and maintenance deficiencies.

Let us look briefly at the need in the air pollution field. As you know, present Federal activities derive from the Clean Air Act of 1970 which directs EPA to conduct research and investigate ways to control air pollution and provide technical and financial assistance to State and local air pollution control agencies. Federal interagency cooperation is encouraged and EPA's own research is directed into specific areas such as health problems, cost benefit studies and control technology. With the increased need for monitoring of ambient air quality and the prospect of more stringent standards, manpower development becomes increasingly more important for effective implementation of the air legislation.

Massive training implications are present in the area of motor vehicle pollution alone. At present, 26 air quality control regions in the United States have incorporated motor vehicle inspection and maintenance programs into their transportation control plans. These areas involve some 68 million people and an estimated 24 million privately owned autos.

Full-scale training of emission control technicians must occur before inspection-maintenance programs can be properly implemented. Several vehicle inspector training programs have already been instituted, such as the one initiated by EPA's Region VIII in Denver. The Arizona State Department of Health has identified the need for vehicle inspector training and has developed a curriculum to this end.

One of the most pressing needs in the fulfillment of the national and state air pollution control strategies is the training of instrument technicians, aimed at heightening our data quality assurance. Those of you in the air pollution field know the difficulties in obtaining adequate equivalence in ambient air quality data. Some of the difficulty lies with the lack of the standardization of methods but much is due to inadequately trained field technicians. These are areas in which Federal, State and local agencies must devote much more cooperative attention.

Another major area is that of solid and hazardous waste. In 1965 Congress enacted the Solid Waste Disposal Act and by 1970, the far-reaching implications of disposing of used resources and waste products were recognized. Congress amended the '65 Act with the Resource Recovery Act of 1970 which officially recognized the potential economic benefits of recovering waste.

EPA is making specific nationwide training efforts in the area of toxic and hazardous materials. The responsibility is by necessity shifted to the State and local governments who must provide financial assistance to implement this important training program.

The area of hazardous waste management is particularly requiring of manpower development and training. At present in Region IX, we might very well be building environmental time bombs in the burying of some of our hazardous materials.

How to handle, transport and dispose of, detoxify, reuse or otherwise neutralize such substances as "agent orange", "tri-arsenate", nerve gases and 800 other hazardous materials involves not only good top-level policy development but also trained workers who can safely deal with these substances.

Likewise, the hazard of increased, indiscriminate and improper use of pesticides has increased in recent years due to their intensified use by agriculture, by industry, by householders and by the government. Although pesticides are of great benefit to man in controlling disease-carrying insects, crop pests, weeds, plant diseases, rodents and other pests, it also is important to prevent pesticides from adversely affecting the health of our society and our environment.

The purpose of the Federal Environmental Pesticide Control Act of 1972 is to meet this challenge. This Act extends Federal control in regulating the marketing of pesticide products and to the actual application of the pesticides by the user.

Finally, let me not neglect two often overlooked training challenges: noise control and radiation surveillance. With the adoption of noise ordinances by more and more local communities, there is a growing need for technical expertise in noise monitoring and inspection, particularly in instrumentation. In the area of nuclear radiation Region IX is currently working with several Federal and State agencies in developing emergency response training systems in relation to nuclear accidents.

In summary, and in conclusion, our Conference will deal with manpower training and development implications of all our environmental programs. The thrust of the Conference, however, is to make you aware of possible avenues of funding for manpower development and training, avenues tailored to the needs of your community.

We have extended invitations to those people we feel are in a position to take the revenue-sharing ball and run with it: the decision-makers, the people who will be dictating what course each State and local agency will take in the area of environmental manpower.

Thank you, and our best wishes for a very successful Conference.

MR. GOFF: I wish to thank our General Session guest speakers that were with us this morning and turn the program over to Mr. Frank Lostumbo, Assistant Director of the Office of Education and Manpower Planning, who will moderate the first panel.

MANPOWER IMPLICATIONS OF FEDERAL ENVIRONMENTAL PROGRAM STRATEGIES

Francis J. Lostumbo, Moderator
Office of Education and Manpower Planning - EPA

Fred W. Whittemore
Office of Pesticides Programs - EPA

Wendell McElwee
Office of Solid Waste Management Programs - EPA

Joseph Bahnick
Office of Water Programs Operations - EPA

James E. Warren
Office of Water Programs Operations - EPA

Jean J. Schueneman
Office of Air Quality Planning and Standards - EPA

MANPOWER IMPLICATIONS OF FEDERAL ENVIRONMENTAL PROGRAM STRATEGIES

FRANCIS J. LOSTUMBO, Panel Moderator

- - -

MR. LOSTUMBO: It is interesting to note that four years ago this month, EPA was formed from many diverse organizational units. A most difficult task that the agency faced at that time was to pull together those many diverse components into a cohesive whole, and achievement of that cohesion still eludes us.

Today, we have a panel representing those components drawn together by a common concern--the manpower implications of their respective program strategies. Hopefully, this conference will initiate a communication link that will move us a step closer to achieving that cohesive organization. This panel and each succeeding panel, hopefully, will be an open communications forum. As a result, the speakers have promised me that they will limit their discussion so that we will have a lengthy question and answer period after the last speaker.

The first speaker today will be Dr. Frederick Whittemore, who is the Deputy Director of Operations with the Office of Pesticide Programs. Fred joined the EPA back in 1973, and prior to his appointment spent ten years with the Food and Agriculture Organization of the United Nations, Rome, Italy. He has his Ph.D., from the University of Massachusetts, and has brought quite an international flavor to the Agency. Fred?

DR. WHITTEMORE: Thank you very much, Mr. Lostumbo. My particular interest, of course, is with applicator certification and the implementation of the amended Federal Insecticide, Fungicide, and Rodenticide Act. Now, the enactment of this particular legislation introduced a number of new implications with respect to the handling of pesticides in this country.

For one thing, the Act provided for the first time for intrastate registration of pesticides. Prior to the enactment of the Act, pesticides which were formulated, distributed, and used within a state were not subject to federal regulations. The Act changed this.

Furthermore, it became a felony to use a pesticide inconsistent with the label. In the past, this had not been true, and this phraseology, "Use inconsistent with the label," is causing a number of problems within the Agency with respect to interpretation of just what this means.

Third, and most important, the Act provides for the classification of pesticides into general and restricted use, and it is this section of the Act, Section 3, which leads directly to Section 4 of the Act, the certification of applicators to use restricted-use pesticides.

I have distributed in the foyer some publications which may be of interest to you. I'll hold them up at this time so that you can see them. The orange one is on, "Some Answers on the Certification of Applicators." The pink one is on, "The Federal Environmental Pesticide Control Act of 1972." And the black one is on, "Standards for Certification of Pesticide Applicators." If there are insufficient copies, you have my name in the program, and I'll be glad to send you additional copies at your home address if you will let us know.

But to deal with this matter of classification of pesticides into general and restricted use, the Act provides that, if the hazard is an acute toxicological hazard, the pesticide use will be classified for restricted use and can only be used by a certified applicator.

If, on the other hand, the basis of classification is the environmental consequences of the use, those particular pesticides can be used only by a certified applicator or subject to such other regulatory restrictions as prescribed by the Administrator.

Now, it is this phraseology which has caused great difficulty in some states. The legislative history states specifically that the Administrator is authorized to employ other regulatory restrictions with respect to the use of restricted-use pesticides; but in the law itself, this enabling part of the law applies only to those pesticides which are classified for restricted use because of their environmental consequences, and this wording causes some difficulties in some states which wish to go the permit route. But it does not appear at this time that this is a possibility. We will probably have to have certification of applicators to use restricted-use pesticides.

The Act provides for two groups of applicators, commercial applicators and private applicators. Within the meaning of the law, the private applicator virtually equates with the farmer, and the commercial applicator consists of all others. Now, this again causes some problems, because we have public health applicators; we have many people who are in the true sense not commercial applicators, and yet they must fall into the commercial applicator category because they are obviously not farmers.

The definition of the word "farmer": One who produces an agricultural commodity, a private applicator. This sometimes raises some difficulty. For example, what is the status of the private cemetery owner? He is not producing an agricultural commodity, and therefore must be classified as a commercial applicator; but he is a private cemetery owner, and we have a number of other cases that are very difficult to handle.

We have published standards for the certification of applicators in the *Federal Register*, and there are copies of this in the foyer.

With respect to the numbers of applicators who we estimate must be trained in order to be competent and certified, this is the key to the law. A person must be determined to be competent to use restricted-use pesticides, and having been determined to be competent, he must then be certified.

How many of these are involved? This is what this meeting is all about. What are the manpower training requirements for these persons? Ladies and gentlemen, I wish I knew. I wish I knew. We have estimates of this number, but I will be the first to admit that our crystal ball is rather cracked and crazed. We have come up with some estimates, and I hope that we are somewhere in the ball park with respect to these estimates.

The estimates, as we see them, are 100,000 commercial applicators and something on the order of 2,000,000 private applicators, but this again will be determined later on--now, this is one of the difficulties in the implementation of this program at this time. When we know the full scope of the number of restricted-use pesticides--this we do not know at this time because pesticides have not yet been classified.

However, all is not lost in this respect, because we do know the general basis for the classification which I referred to earlier, acute toxic hazard or environmental consequences. And when we look at some of the pesticide uses that we have in this country today, and we consider such compounds as parathion, with its very acute toxic hazard, and we consider the pattern of use of parathion in agriculture, it is quite probable that a very large portion of private applicators will have to use parathion and will therefore have to be certified.

Now, I'm not saying at this time that parathion will be classified for restricted use. Certainly, in my mind, this is a very likely candidate for restricted use.

Possibly some of the environmental pesticides - those which produce long-term effects - may, if the current courses of action are pursued, almost disappear, especially with this most recent cancellation--if it stands up--on chlordane and heptachlor.

However, the fact remains that we will have a number of restricted-use pesticides. Persons, to be able to use them, must be certified to be competent. If they are going to become competent to use them, in many instances they will have to receive training; and if they are not certified, the use of these pesticides will be denied. They simply will not be able to use them, either for agricultural production or for the protection of the public health.

How much training will be required? Again, we have estimates. We are thinking in terms of something in the order of eight hours of training for private applicators and something in the order of 40 hours of training for commercial applicators.

Now, you might ask, why the difference between the private applicator and the commercial applicator. If you will recognize the fact that the private applicator is a farmer who, in many instances, has worked his own land for a long number of years, who is thoroughly familiar with the crop pests and diseases which he must control, has had experience with the compounds and the materials over the past years, it becomes quite evident that he does not have to receive the scope of training with respect to the numbers of different pesticides that would be required of the commercial applicator who must of necessity, particularly in the agricultural field, deal with a wide variety of crops, crop pests and diseases. This is the explanation of why we think that the private applicator, although he must know just as much as the commercial applicator about certain products, will not have to have the broad general knowledge of a large number of products that will be required of the commercial applicator.

We visualize this certification program, and it is mandated by law, to be a state program, a state certification program, and a number of the states are now developing their state plans as is required under Section 4 of the Act for approval by the regions of EPA. All plans must be submitted to EPA by October of 1975, thereby allowing one year for review and approval of the state plans to meet the mandatory date of October 21, 1976.

In summary then, in the pesticides area we have a new program in many senses. We have a new program in the sense that we will be classifying pesticides for general or restricted use for the first time, but those classified for restricted use can only be used by certified applicators who must in turn be determined to be competent and, in many instances, will require training.

In this effort there will be little federal assistance. We have tried to obtain funding for this virtually without success. Therefore, this particular conference is apropos to the problem that we have before us, that we must uncover other sources of funding for the training and the certification of pesticide applicators if we are to meet the mandatory date of October 1976, and have these materials available as they are required for agricultural production and for the protection of the public health.

MR. LOSTUMBO: Thank you very much Fred.

Our next speaker, Wendell McElwee, is a Senior Sanitarian with the Office of Solid Waste Management Program, EPA, and Wendell has 14 years' experience with the U.S. Public Health Service and related programs - many of those with solid waste. He has a B. S. in education from Kent State University, and his M. P. H. from the University of California. Wendell?

MR. McELWEE: Thank you, Frank. I might elaborate just a little bit on the last nine years. Frank did not mention it, mainly because I didn't ask him to, but I have been involved in training in one aspect or another for about eight-and-a-half of those years. For four-and-a-half years, as many of you know, solid waste training was located in Cincinnati, where I worked for the illustrious Dr. Wilcomb. The last four years I have been involved with the federal solid waste training grants - both the university training grants, and the state training grants, which were initiated in Cincinnati.

To understand our present situation, we really need to consider-need to consider the past. I think most everyone has been doing that this morning on the program. I would like to continue that for just a few minutes also.

The federal solid waste program originated when the Solid Waste Act was passed in 1965. We did recognize the state and local needs for training. We knew that this was needed very badly, but had little idea as to the magnitude of the need for solid waste training. We did not have survey data available for guidance. Information was obtained from various sources and later surveys, which did emphasize the need for training.

Along with the direct training short courses in Cincinnati, there was additional need for these courses in the states. The need for courses to be presented away from Cincinnati became apparent by 1970, when class attendance fell and we were informed that people, at the local level particularly, could not travel out of state for training.

At this time we also planned and initiated a state solid waste training grant program whereby we could provide funds for the states to establish a training program to fill the needs in their state, particularly at the local level. This was a very modest program, with only a total of 12 states that did receive training grants, which existed for two years. Some of them--two, in fact--are still in existence due to extensions of time to give them an opportunity to utilize all the funds which they had been awarded.

Now, before the state grants were awarded in 1970, the University Solid Waste Graduate Training Grant Program had originated when the federal solid waste program started in 1965. Those grants began in 1966 with a total of 16 universities receiving awards. These grants supported graduate-level training. To date, there are still six of the universities operating. Similar to the states, they are utilizing the funds which were originally awarded to them. Our budget cutbacks and restrictions started about 1972, and consequently, these grant programs began to phase out at that time, and then technically close out during July of 1973. Also, about that time the Mission 5000 program was phased down. This occurred when our office in Cincinnati was moved to Washington, D. C.

Final results of the university and state training grant programs can not be determined. The grants are not completed, and it is very difficult to conduct surveys of an ongoing training program and produce realistic figures. Concerning the state grants, I can estimate from the final reports received from ten states completing their grants, that over 7,500 people have received training at the state level from state personnel, and that is just a small measure of what we feel those grants have accomplished.

With the university grants, it is even more difficult to estimate results. That program had been in existence for a number of years before I became involved with it, and some of the universities had already been terminated. We have an estimate of the number of graduate students produced which is approximately 200 who have received a Master's degree in solid waste management.

There has been some controversy concerning the university grant program, and I feel that it becomes a matter of viewpoint in evaluating this program. Some people have felt that results were not worth the money spent to develop these grant programs at the universities. Comments are that the graduate students are not necessarily going to the area of need. It was one of our goals in this program to have graduates go into federal, state, or local government. In these three categories, federal, state and local government, the graduates employed have been about equal to the number of graduates employed by consulting firms.

There are some who felt that this was not our purpose - to provide graduates for consulting engineering firms. Here is where I think it depends upon your viewpoint. If you are considering the environmental needs of the country, what is the difference whether a man goes to work for a federal, a state, a local agency, or whether he is employed by a consulting engineering firm? If they are working in solid waste management, and it is our goal to improve the conditions of the country in this field, we felt that this was being accomplished, regardless of where the graduate was employed.

That is just a little bit of the background on solid waste training, and brings us up to today and our program. We still know there is a tremendous need for training at the state and local levels in the area of solid waste.

We have some rough estimates, and as previous speakers have mentioned, we also do not know exactly what the training need is. Particularly, we do not know what the need is because of the emerging hazardous waste program. At our own level, the federal level, we know that virtually all of us will need some training in hazardous waste management. Our lack of budget and manpower restricts the amount of assistance which can be provided at the state level.

As far as legislation is concerned at the federal level, there is legislation pending in Congress. A bill before the Senate Public Works Committee does include training. At this point, we can only guess as to what will actually happen with this legislation. Apparently, this legislation will not be passed until next year. Even with the money in that bill and the inclusion of training, passage of the bill next year still means that the money will have to be authorized for purposes of training.

In the area of training aids, we still have some training aids that are available. One is "Operation Responsible," and the other is on actual operator training. Both packages include films, slides, manuals, and are available from the National Audio-Visual Center in Washington, D. C.

In summing up, I am trying to tell you that we recognize the need for training at the state and local levels. We know there has to be funds for this training, and I emphasize to you that if you have an opportunity to work with regional offices and utilize the CETA funds, we urge you to do so and to use these funds for your training in solid waste management.

I'd like to mention also that very shortly your problems are going to be my problems. I am in the process of being detailed to work with a state for two years, and so I feel like I am wearing two hats this morning. I am speaking from the federal level, and I will be working very shortly at the state level with state problems.

MR. LOSTUMBO: Thank you very much, Wendell. Our next speaker is the Chief of the Water Quality Training Branch, Municipal Permits and Operations Division, Office of Water Programs.

Joe Bahnick has a B.S. in chemical engineering from Penn State, and he has served for 12 years with the duPont Company in supervisory and management positions. He has been with the Federal Water Pollution Control Administration since 1968, and subsequently, with EPA where he has developed a number of operator training courses. His current position is Chief, Water Quality Control, Manpower Training Branch, Municipal Permits and Operations Division, OWPO, EPA.

MR. BAHNICK: Thank you, Frank. I'm going to cover the manpower implications of the EPA water strategy and programs for Public Law 92-500, the Federal Water Pollution Control Act.

Programs under this Act include the Construction Grants Program - that billion dollar effort to build water pollution control facilities - the National Pollutant Discharge Elimination System (NPDES), permit compliance, operation and maintenance of wastewater treatment plants, and manpower training. Due to time limits, I'm going to cover the manpower requirements of operating municipal wastewater treatment plants, the operator training program. Direct training, professional training, and the 109(b) state training center sections that are also authorized by our PL 92-500, will be covered in panel sessions on Tuesday.

The needs for manpower at municipal wastewater treatment facilities are, to say the least, very large. This past year, our Office conducted a survey to estimate these needs. The survey was conducted by our regional manpower people in conjunction with state agency people. We have data from about 41 states, and in summary, the survey indicated that the current employment in these plants is at 67,000 to 70,000 people.

The people who made the survey made an estimation that to meet NPDES secondary effluent limitations, we should have around 85,000 people in those plants right now. There is a shortfall of about 18,000.

Based on this survey, a guesstimate was made that new-entry requirements for growth, new plants, and turnover is about 10,000 operators per year for the next three or four years. Upgrading of about 35,000 people is required to get these plants into operating condition to operate under NPDES permits. Copies of this survey report are on the table back in the registration section, and if they disappear, you can get extra copies from me or from the Regional Manpower Offices.

Now, in addition to that survey, our O & M people conducted some studies on water pollution control plant operating conditions. This study indicates that approximately 50 percent of plants designed to provide secondary treatment, and recently constructed - within the last couple of years - with construction grant funds, could not meet secondary effluent limitations.

Now, both the survey and this study pretty much indicate the magnitude of the manpower problem and training needs resulting from Public Law 92-500. To what degree does manpower affect the National Water Program Strategy? Well, the answer to that is very simple. Without trained manpower, the Strategy just is not going to work. Without trained manpower, municipal water pollution control plants, and for that matter, private industry plants, are not going to be able to comply with the NPDES permit effluent limitations. These plants, large or small, have to have operators skilled in process control techniques and laboratory techniques. They've got to know their business.

The Office of Water Programs issued National Water Strategies - we've had something called the year of the NPDES permit. We're starting in FY '76 the year of permit compliance. There is no question in my mind, the year of manpower has got to come along soon. In fact, I think we'd be a lot better off if the year of manpower had come before these others.

The third point I want to cover is manpower training activities administered by our Office, and again I'm going to concentrate here on operator training. For the past four or five years, our Office has administrated operator training programs funded by MDTA. Now, this program is primarily geared to entry-level training, and to meet the objectives of the Labor Department and the Manpower Development and Training Act, and that's to find jobs for unemployed people. Unfortunately, this source of funding has been phased out.

The replacement program, the focal point of this conference - CETA - is geared to be covered this afternoon, but again, CETA is geared to entry-level-type training, again to meet the objectives of providing jobs for unemployed people. In addition, our Water Programs Office has administered operator training, authorized under Section 104(g)(1) of the Act. Now, these training funds are used primarily for upgrade training of treatment plant operators. We can train people in laboratory controls. We can do some supervisory training, some maintenance training, and training leading to operator certification.

In addition to those funds, we've used some for developing and administering training for instructors, full-time and part-time instructors, who conduct operator training programs, both at the state and local levels. We've also developed a manpower planning manual and have conducted some training courses to assist states improve - develop manpower planning capabilities.

The NPDES permit program has really magnified the need for upgrade training for personnel to operate these plants. We've got to meet secondary effluent limitations and we've got to start meeting these so-called self-reporting requirements of the Act.

For the self-reporting requirements part of NPDES, we are currently developing four levels of laboratory-type training programs for operators. The first level is to provide training in the fundamentals of lab techniques. This is training for those operators who would have problems handling balances, using pipettes. The National Training Center has developed a second-level course, a one-week course, in which we can help the operators to perform the five basic parameters--BOD, SS, pH, Fec Colif., FLOW--that all municipal permits - all municipal plants have to report on.

We will also develop courses on nutrient analysis and on metals analysis. Now, each of these courses will include an instructor manual, something we call a Trainee Effluent Monitoring Procedure Guide, and audio-visuals.

The second course that Harold Jeter & Company have developed out at Cincinnati - the instructor's manual and the monitoring guide will be available for distribution in January. We'll get copies of these things out to the states. The National Training Center is going to conduct a course for state instructors, those who conduct this kind of training, again, in January in Cincinnati. Word of these courses will come out through our regional manpower people.

The instructor's manual, and also some training materials for this first course that I've talked about, will also be available for distribution in January or February. Currently, we have three training centers: one in Maryland, one in Florida, and one in Missouri conducting pilot efforts in these courses. We have some training funds to fund three more sites this fiscal year, and, hopefully, we can get one of these demonstration grants in each region.

This effort is keyed to effluent monitoring and the compliance assurance program. The whole effort is based on the NPDES self-reporting requirements, and if the lab data is not reliable, the whole program is going to be in trouble. To assist plant operators in meeting effluent limitations, we're going to develop similar-type programs in process control techniques.

By April 1975, we hope to complete some model standard operating job procedures for treatment plant operations. These operating procedures will contain some control technology developed by Al West and used in the Seattle metro plant. Again, we'll try to get these materials out to the state agencies and to the instructors.

In addition to these types of programs, we'll be working with ABC, the Associate Boards of Certification, to develop and improve operator certification, certifying programs, especially in the testing procedures. We'll work with instructor training, and we'll provide some training for state planners.

In summary, our operator training strategy will focus on assisting states to develop operator training capabilities. We're going to provide $650,000 in FY '75 of 104(g)(1) state grants funding to state agencies. This will go through our regional manpower people to Regional Administrators to award these grants. We'll continue to develop courses, curriculum, training materials, and audio-visuals to support these training programs. We will continue to train instructors, and we will continue the demonstration grant for short periods to get some of the new programs going. We feel at this point in time, with these limited resources, that this strategy is the most cost-effective way of trying to meet some of these needs of PL 92-500.

MR. LOSTUMBO: Thank you very much, Joe. And now, we'll hear from the clean water man, the Chief of the Special Studies Section in the Water Supply Division, James E. Warren. He is a commissioned officer of the Public Health Service, and has been involved with water supply and pollution control programs since 1963. Jim has a Bachelor of Engineering degree from Vanderbilt University.

MR. WARREN: The remarks that I'm going to make are going to differ slightly from those that you've heard from the pollution control people. We are not operating an up-to-date legislative mandate that includes positions for manpower development, but I hope that the efforts that we have made in manpower planning will be of interest to you, and perhaps you might be able to offer us some suggestions as we get into this new legislation.

Prior to 1900, the epidemics of water-borne diseases in the United States were commonplace. With the introduction and use of filtration and chlorination at the turn of the century, the incidence of disease fell rapidly. These epidemics were virtually eliminated.

It's not surprising, therefore, that a complacency with the quality of drinking water arose. This complacency was felt at the state level of government in terms of insufficient resources to provide an adequate program of water supply surveillance, training, and technical assistance. The growing national concern over other sectors of the environment, such as air and water pollution and solid waste disposal, has placed water supply at a competitive disadvantage for resources.

In recent years, however, many sanitary engineers and health professionals saw indications that this complacency was resulting in a dangerous narrowing of the margin between a safe and an unsafe water supply. These indications took the form of failure to meet constituent limits, poor operation and maintenance of facilities, inadequate bacteriological and chemical surveillance, infrequent sanitary surveys, and inadequately trained system operators.

Frequently, these deficiencies led to sporadic disease outbreaks which are now occurring at the rate of one reported outbreak per month, and have resulted in an average of four-to-five thousand cases of illness each year.

Of greater significance, however, was the realization that reported outbreaks represented only about one-tenth of those that actually occur but are not reported. Furthermore, the role of drinking water quality as a possible cause of chronic illness, such as cancer and heart disease, is just now being recognized.

These determinations haven't escaped the notice of Congress. Over the last four years, legislation to ensure a healthful supply of safe drinking water has been under development. In the past few weeks, the legislation has passed both Houses of the Congress, and it's my understanding now that it's gone to the White House to be acted on by the President. The Safe Drinking Water Act of 1974 would authorize EPA to establish drinking water regulations or standards which would be applicable to nearly all public water supply systems in the country. The states would be responsible for enforcement, with back-up authority vested in EPA. The legislation would also expand EPA's research and technical assistance activity. This recognizes that a successful water supply program involves more than just the enforcement of the standards.

Grant funds would also be available to assist the states to expand their programs, and specific emphasis would be placed on programs for training persons for occupations involving the public health aspects of drinking water.

Well, despite the current lack of a legislative mandate, the Water Supply Division has been working with the states all along in an effort to upgrade the states' water supply programs. And we hope that this will lead to improvement in this nation's water supply systems.

For instance, our regional offices have completed, or have in progress, comprehensive evaluations of water supply programs in 13 states. These evaluations, which include a review of the state laws and regulations and administrative policy activities and organization and resources, are being used by the states to make improvements. They form the basis for justification of needed increases in funds and manpower.

During the course of these evaluations, it's been necessary to define the essential program activities and to estimate manpower needs. Recently, the Water Supply Division has developed, with the close cooperation of the Congress and the Conference of State Sanitary Engineers, a manual for the evaluation of state drinking water programs. This manual builds upon experience gained during prior state evaluations, and forms a rational basis for estimating state water supply manpower needs. While it provides an estimate of resource needs for various activities, the form contained in the appendix to this manual provides an opportunity to customize manpower needs to the particular state under study. This flexibility is essential in order to account for differences that exist from state to state.

I would now like to outline that portion of the manual that relates to the development of manpower needs. Rather than go through each of these activities and explain the rationale, I think I'll just briefly note them and then, if there are any questions about how we came up with the figures, I'd be glad to answer the questions.

The basic building block used to calculate manpower requirements is the number of public water supply systems. We define a public water supply system as any system that provides water to the public for consumption, and this is exclusive of water that is sold in bottles or other closed containers.

And we define two classes of public systems. One is the larger systems that provide water to ten or more premises, or to 40 or more resident individuals. Then, there is a large group of other public systems that also provide water to the public but are small, such as systems found at recreational areas, and self-supplied motels and restaurants.

An effective state program must conduct certain activities for each public system to determine compliance with state laws, regulations, and policies, and to provide assistance to correct deficiencies when they are found, and we've categorized these activities, as you'll note on the screen, into five areas.

One is the engineering and technical assistance activity; others are bacteriological surveillance, chemical surveillance, laboratory evaluation and certification, and operator certification and training.

Based on these activities, we came up with a system estimate of manpower needs. While these national figures are of primary interest to us, the states quite properly have their own individual state requirements uppermost in mind.

Each state may wish to use the manual as a tool to calculate its own individual needs, and although we feel our estimates of manpower needs for various programs are reasonable, I'd like to stress that when individual state needs are being calculated, the evaluator should think through the conditions applicable to its own particular situation and develop different figures as appropriate.

To assist in this process, the manual explains the assumptions and derivations that were used in reaching staffing needs, and it includes a form to assist in the calculations. By applying our per-system figures to the number of public water systems in the country, the gross estimate of total manpower needs can be calculated.

At the present time, we are in the middle of an inventory of municipal water supply facilities. This is the first update of the last inventory that was done in 1962. At that time, there were slightly more than 19,000 systems. Now, we estimate that it's going to be somewhere in the neighborhood of 40,000. Based on this 40,000 figure, the states would require a staff of approximately 1,600 engineers, chemists, bacteriologists, technicians, and other support personnel.

In addition to these community systems, we estimate that there may be as many as 200,000 of these other small public systems. These systems will be covered under the Safe Drinking Water Act. This will require nearly 2,900 additional state people, for a total of some 4,500 employees.

We really don't have any accurate statistics on the current number of employees involved in state drinking water programs, but the best estimates we have indicate that there are somewhere in the neighborhood of 500, or only about 11 percent of the number that's needed.

Most of the current state programs devote their efforts to the community systems; but, even so, the current manpower is less than one-third the amount that we feel is needed for this class of system. So, obviously, the buildup of state staff is going to be a gradual process spread out over a number of years. We are highly encouraged by the progress that has already been made in the states that requested evaluations of their programs. Armed with the results of an independent evaluation, many of these states have hired, or have been authorized, sizeable increases in their staff. We hope that this manual can be used by the other states as a tool to develop and support resource needs, and that similar program growth will take place.

MR. LOSTUMBO: Thank you very much, Jim. Our next speaker is Mr. Jean Schueneman, who is currently the Director of the Control Programs Development Division in the Office of Air Quality Planning and Standards down at Research Triangle

Park in Durham, North Carolina.

Jean has been involved with air pollution activities since 1948. He began in St. Louis in the Health Division where he served as an Air Pollution Control Engineer until 1955. And after that he spent 13 years in the Public Health Service. Prior to joining EPA, he spent four years as Director of the Air Pollution Control Program in the State of Maryland. Actually, Jean has worked so long and so well in air pollution activities that, most recently, he returned from a technical assistance mission with the Pan American Health Organization down in Peru.

MR. SCHUENEMAN: I first want to talk briefly about where we are in the air pollution field and how we got there. We can start with old smoke abatement programs that were operating about 1900 and thereabouts. The programs at that time were to train boiler operators to burn soft coal in such a way that they would not make smoke. They tried that approach for 40 years; after 40 years of trying to teach boiler operators how to fire coal smokelessly, they gave up and took the bold approach and prohibited the use of high-volatile coal in hand-fired furnaces and solved the problem.

I'm not sure that that's not going to turn out to be the case with some of the things that we're working on at this time. The answer may be better technology rather than trying to train people who often don't care to do things that they don't really want to do. It's a tough job. Maybe we can do it. Later on came broader-scale programs in the mid 1950s. Growth began to happen in the middle 60s in most programs, with some exceptions. But even in 1965, there were only 1,600 state and local government air pollution control employees.

Major growth has occurred since 1967 in various federal grant programs in conjunction with the environmental awakening. But even in 1967, there were only 2,000 people, and now there are about 6,500. We've about doubled the number of people in the past four years in state and local programs.

The national air pollution program depends upon the performance of a particular task by well-trained people in almost every sector of society. It's the federal government; it's the state and local air pollution control agencies; it's polluting industries, control equipment manufacturers, scientific instrument vendors, universities, political bodies, citizen action groups, automobile manufacturers, manufacturers of basic process and combustion equipment, urban planning organizations, transportation agencies, the automobile maintenance industry, fuel suppliers, producers and converters, and consulting firms.

So, all we have to do is get all the people involved in air pollution activities trained to do what they should do, and the problem hopefully would be solved. That doesn't seem to be what's going on, however.

The overall scheme is for government at the various levels to identify air quality goals, to develop overall management plans, to adopt laws and regulations and then to enforce these laws and regulations and evaluate status and progress.

The commercial and industrial sectors are called upon, with some help from the government, to provide the tools needed to actually keep pollution out of the air, to apply control equipment and to maintain and operate it, to do research and development, and to develop better ways of doing jobs to make less pollution.

The general public and legislative bodies are expected to try to understand and support our programs, to adopt laws that we need, and to provide budgetary support for governmental activities.

The academic community is supposed to provide training and conduct some kinds of research. All of these activities take trained manpower. The basic education is provided by universities, by high schools and the primary schools, but these institutions do not provide people who are fully trained and prepared to do the variety of jobs that need to be done. There's a great need to adapt the basic education that people receive in formal schools to those specific purposes and jobs that we have to do in the air pollution control field at the professional level.

Since the field is relatively new and growing, a pool of trained manpower did not exist and does not now exist to which we can go and convert people over from what they were to some kind of an air pollution control specialist, without some kind of training and reorientation.

In the commercial and industrial field, the job of training seems to fall mostly upon the commercial and industrial sector, and the training must be done by them rather than by government. We hope that they will take that responsibility, and they seem to do fairly well.

So, take a look at the state and local governments. What are they expected to do under provisions of the Federal Clean Air Act, which says the state and local governments are primarily responsible for doing the job of controlling air pollution, as specified and identified and interpreted by EPA?

They have to measure air quality; they have to develop complex programs for managing the air resource in terms of identifying emission sources and cleaning them up and finding ways and means to do so; they have to review environmental impact statements; issue permits on new construction for thousands of different kinds of facilities; enforce regulations; inform the public; integrate air quality considerations in the land use and transportation plans, including the new goal of developing what is known as a transportation control plan, which means nothing more than revising the whole transportation system of a city so that air pollution will be reduced, as well as move people from one place to another.

They have to collect, store, analyze and report on masses of air quality and emission data, and they are supposed to participate in motor vehicle inspection maintenance programs, including, presumably, training the people necessary to get the job done.

Again I would say that people fully prepared to do this kind of wide-ranging and complex job just are not produced by universities, and probably will not be produced by universities since we have so few people on a national basis--perhaps no more than 10,000--engaged in government activities. You just don't have the market necessary for universities and others to train those people without federal support.

We know that more than half of the people who are now on-board in air pollution control agencies have been there less than four years, and it does take some time to understand the complex field of air pollution control. We also know that state and local governments need an additional 3,000 people to do the job in the complex air resource management field, and we don't see where these are coming from, nor who will train them. We don't think the state and local governments can do the air pollution control job without proper training for the people that they need.

Some of the results of a lack of trained personnel in state and local governments will be the development of poorly done comprehensive plans. There just won't be a strategy-and-tactics document indicating where we're going and how we're going to get there, because it takes a rather vast knowledge to figure that out and to lay it out in such a way that it will come to pass and happen.

We'll have inaccurate air quality data, resulting in large expenditures of money for inappropriate purposes and based on faulty data with questionable outcomes. We'll probably have inaccurate emission measurements, because the staff and personnel are not properly trained to make them, making it possible for some sources to pollute without getting caught, and resulting in court cases and long harangues.

We'll have poorly directed programs because the administrators of programs are not adequately prepared. As far as I know, there is only one place in the United States that attempts to train the fellow who runs a control program. Where do program directors come from, unless someone does train him? Most Agency people rise up through the technology field and end up directing a program with little or no knowledge of the total impact of it and how to integrate it into the community and how to take care of the budget, personnel, political relationships, public information, etc., which are all new to the rising technologist.

We'll find that abatement schedules which agencies develop, because of inadequate knowledge and training of personnel, will not be public interest abatement schedules, but rather, they'll be industrially oriented compliance schedules. We'll lose public support and political support because of poorly operated and ineffective programs that may be expensive.

We'll probably have more new sources that pollute unnecessarily because somebody did a bad job of reviewing the plans and specifications for new plants. And we'll have other kinds of various unmet goals in our programs.

EPA has a direct training program that operates out of Durham, North Carolina. It conducts about 90 courses a year - about half of them in North Carolina, the other half at various locations throughout the country, in cooperation with our ten regional offices and the states. These cover about 34 subjects. Some 3,000 students attend each year, but even at that, we expect that this fulfills less than 20 percent of the training need that has been identified through comprehensive studies. We do produce some self-instructional courses so that people can teach themselves in their own offices, and those materials can be used by control agencies in training their people. We provide training materials and consultation to state and local agencies that want to conduct their own training.

EPA has provided some support for universities to conduct graduate training for personnel who want to work in the air pollution field. We used to support 40 universities in this work; we now support 18, with 180 people being trained each year. We also support consortia of universities and an Environmental Management Institute for training directors of control programs. The Office of Management and Budget has directed that this program be phased out, with fiscal 1975 being the last year of funding, although as Mr. Alm indicated, we are trying to get that extended.

We provide fellowships for control agency personnel to go to graduate school and find out more about what they're to do and get them combat-ready and operational in a shorter period of time. We now provide 70 of these each year. Hopefully, after they receive their training, they go back to work in their home control agency.

Our activities in the training of industrial equipment operators, who run the control equipment to prevent pollution from going into the atmosphere, has been zero. We expect and hope that the industrial community will take care of training those people.

We have done nothing to train the people who operate the hundreds of thousands of air pollution sources, such as home heating plants, water heaters, automobiles, backyard trash burners, and all the boilers in buildings. We don't think we can do much in this field because the people are so numerous, so diverse, and generally unavailable for training. We'll have to get at that problem through foolproof equipment that can't be improperly operated, and by technological change that will make the source or operation clean no matter what the operator does to it.

We do see a limited role for state and local air pollution control agencies in training their professional staffs, and certainly in training the technicians who work within state and local air pollution control organizations. And we think perhaps they can do something about training the motor vehicle inspection staff if the federal government can help them out to some extent. We don't believe it advantageous for state and local governments to do many of the kinds of professional training that need to be done. The federal government is in the best position to do it properly, effectively and efficiently, although we do see inadequacies in EPA's program in that field at this time.

There is much to be done in the field of training motor vehicle mechanics. As you all know fr[illegible] having taken your car to an automobile mechanic rip-off man, you just don't get particularly good service. The federal government has done almost nothing about training automotive personnel, but we have promulgated regulations that say there shall be adequate automobile maintenance. Our actions seem to indicate that this is sufficient; we don't have to do any more. It just doesn't happen that way, and you all know it. We've got to get something tooled up; get the automobile industry, the oil companies, and vocational schools working with state and local governments; we need to provide training materials; we need to get people in and get them taught how to do what they are supposed to do.

Generally speaking, I think our evaluation of our own training program - and I may improperly reflect EPA's views; these are my personal views - is that our training program is totally inadequate to do the job that it's supposed to do.

My view is that if the federal government will set the goals and targets, provide information on methods and procedures, train the people who are needed to do the job, and then turn the state and local governments loose to do it, that the job will get done with some policing and overview, hopefully a minimum, by the federal government. The key that seems to be lacking and seems not to be understood at the federal, state, and local levels in government is the crucial need for manpower development and training at the professional level, at least, and perhaps at the operational and technical levels as well.

This being the case, perhaps this conference will help draw attention to that need and get some reorientation and redistribution of funds. I doubt that we can count on much increase in total available funds, but we've got to identify those things that are being done which are not as productive as manpower training, and get the money shifted from those things into manpower training.

MR. LOSTUMBO: Well, now that Jean has charged us all up with that stirring speech, I'm sure there are many questions from the audience.

MR. MILLER: My name is Charles Miller. I'm with the Iowa Department of Environmental Quality, and I have a pair of questions for Mr. McElwee that I would like to ask him in the nature of solid waste. Why does the national strategy contain no specific manpower needs at this time? And the second one, with the first question in mind: I really don't understand why the Mission 5000 project was dropped.

MR. McELWEE: I'll answer the second one first. Mission 5000--I think that this was a casualty of the budget cutback, budget cutbacks involving money and manpower which, as I mentioned, occurred last July 1. That's when our Office was moved from Cincinnati to Washington, D. C., and we experienced our big sliceback. Would you repeat the first one again?

MR. MILLER: Yes. The national strategy for manpower training in solid waste - I wonder why you haven't got more figures on what's needed. Why doesn't the national strategy contain more specific manpower needs?

MR. McELWEE: Well, I mentioned that we have some estimates on that, and I must confess I wasn't involved with this. Jon Perry and personnel at Frank's office were involved with the survey that I mentioned, and we do have some figures. I have some tables with me, and Frank can correct me here if I'm in error, that as of July 1, 1974, we felt there was a need for 91,000 positions to receive upgrade-level training.

MR. LOSTUMBO: That's man-weeks, Wendell. Let me perhaps clarify this a little bit, too. There was a study done by the Office of Solid Waste Management several years ago--I believe it was in '71 or '72--which indicated some manpower shortages.

The problem is, with that study and our most recent study, we don't have a sufficient statistical sample to lay on the line and say these are really where the needs are. Now, we're depending on you people in the states to help us fill those factual data gaps that we have. It is a major problem at the national level to identify the specific needs when the data we have does not constitute a statistically valid sample. Does that answer your question?

MR. MILLER: Yes, it does. Thank you.

MR. VASUKI: My name is Vasuki. I'm with the State of Delaware. I'd like to compliment Mr. Schueneman for an excellent summation of manpower problems faced in the environmental field. While I think he expressed very clearly what the states and local governments need, I'd also like to suggest that perhaps EPA does need some of that trained manpower because of a very vacillating policy, which indicates that sometimes they don't know what they're trying to direct.

A VOICE: The question I have is for Mr. Bahnick. He mentioned that many of the plants were not able to meet the secondary treatment standards. The question is: Were the secondary treatment standards under Public Law 89-660, or is it Public Law 92-500?

MR. BAHNICK: Public Law 92-500.

A VOICE: Well, again, this points up a problem of changing federal standards and regulations. The inertia of the political system to carry out some of these goals indicates that we should not have major changes in national policies anything less than a decade.

MR. BAHNICK: These plants were designed for secondary treatment. They should have been meeting the standards. It wasn't a situation of primary plants not meeting the secondary treatment requirements.

MR. SUDDRETH: I'm Jim Suddreth from the Water Pollution Control Federation in Washington. I have a couple of questions for Joe Bahnick, and one of them I think he answered. What is the current status of 104(g)(1)? When the amendment that carried on 104(g)(1) this year expires, what will happen? Will it be continued?

MR. BAHNICK: We will have funding for at least one more year ending June '76.

MR. SUDDRETH: For one more year you're going to have that funding. Is the C.E.W.T. Program and the TV Program in Wyoming going to be continued? What's the situation on the National Impact Programs?

MR. BAHNICK: The TV Program in Wyoming was funded by the region. Development will stop at this point, and we'll be looking at what we're going to do with the program as far as distribution and utilization are concerned. And which is the other one?

MR. SUDDRETH: The other one was the C.E.W.T. Program.

MR. BAHNICK: We will fund one of the three community colleges for at least one year. We're at the point now where the instructional materials, the curriculum and all associated resources are ready. They should be ready for distribution by the end of this year to any community college that might want to put on the course, without funds from EPA.

MR. SUDDRETH: OK, so after this one-more-year funding, you have other pilot programs you expect to go into on the National Impact?

MR. BAHNICK: The second pilot program we're developing is a program at the two-year Associate of Arts level being developed in New York right now, geared to water quality, surveillance and analysis. Hopefully, we'll get two-year people out who can work for state agencies in this big job of water quality surveillance.

MR. SCHRADER: Yes. I'm Dave Schrader. I'm with the Environmental Protection Agency, and I'm on loan to the State of Maryland, and I share that feeling of having a home in either place.

The question relates to National Impact Programs. We in the State of Maryland are very much in favor of National Impact Programs. We like to participate in them. We would like to know who determines the priority of what a National Impact Program is, where it shall be held, and what input the states should have when the major portion of a National Impact Program is going to be conducted in a state.

We're concerned because the question relates to a number of incidents over the last year where we'd get to the office in the morning and have questions from the secretarial level, the Governor's office - what is this national program going on in our state? And they've not been clued in and neither have we. We'd like to know how the regional office and the state office are supposed to fit into that procedure in the past, and what's going to happen in the future.

MR. BAHNICK: On the priority for National Impact Programs, that's pretty much in our shop, Dave, with myself and my staff and, of course, my able leaders up above. We're going through this again with FY '75, and we'll be doing it in FY '76. Yes, we've had some problems, I think, with communications once we have a program going in a state. We'll try to improve this.

A VOICE: Bud Hovey, New York State. This is mainly directed at Jean, but also at everybody else here. I get very disturbed when I hear that the Office of Management and Budget is telling the EPA to phase out this program and that program, particularly the training programs.

We have 250 people working just in our air pollution agency alone, and it would become an impossible task for us to train all of these people the way that EPA can provide the training, so we need the EPA training centers available to us, particularly for our technicians' training.

Another thing I want to say to Jean is that - he talked about training auto mechanics. We have a pilot program going on right now for the training of auto mechanics in the servicing and maintenance of the air pollution control systems on cars, and if anybody is interested in knowing anything about that program, they can get in touch with me in my office in Albany and I can send any of the information to them.

MR. SCHUENEMAN: I don't know how things operate in the national headquarters because I've never worked there, but we down at the working level--we work in North Carolina, as you know. But we at the working level understand that OMB has directed this, that, or something else. Certainly, EPA is not without influence in OMB, and certainly we do have some prerogatives to direct priority within EPA.

One can debate, and I have debated unsuccessfully, as to the relative importance of manpower and other program activities. Part of the reason for lower priority being assigned to training is that we don't get strong support on the need for manpower training. It's a non-visible kind of thing, partly because Frank King and his group, I think, do it so well. We almost never get a complaint. All we get are letters saying, "Thank you so much for having conducted the program."

But if people don't get trained, you don't see headlines in the New York Times that say, "The XYZ Corporation Has Been Thrown in Jail." It's just not a big public attention-getter. We think that perhaps state and local governments can assist by making their views known more often and more vociferously as to the merit, need for, and usefulness of manpower training, so that we can develop a constituency that will assist EPA's management people in the upper echelons in assigning priorities to this program or that program, and where you put a limited number of dollars, and what the most important things are.

With respect to auto mechanic training, we don't see a great need for EPA's direct activity. We do see a supportive role in the development of channels of communication, development of training materials, and working with national-level organizations. If EPA can sensitize them to the need for training, then when state and local people try to get the job done, they'll have support from the national-level organization.

MR. BAHNICK: Let me add something to what Jean has said on professional training. We initiated fellowships for state agency personnel two years ago. We had some 43 fellowships in FY '74 out, and we'll continue that this fiscal year, in FY '76.

We issued a grant to Utah State for Joe Middlebrooks to survey state agencies, to get a handle on what impact the phase-out of the professional training grants will have on providing those professionals for your programs. When it comes around to your agency, here's a chance to do what Jean was just saying. Voice your opinion one way or another on just what that phase-out of that program means to your agency.

MR. LOSTUMBO: I think the key point here, too, was stated earlier by Al Alm. The Agency is pushing very strongly to at least put the phase-out program on a hold basis while we're acquiring data. We are hopeful that our appeal will have some success, at least keeping the phase-out plan at a level that it was in FY '75. In the interim, we expect to gather data to determine what the professional training situation will be a year or two from now.

MR. BENNETT: Ernest Bennett, State of Illinois EPA. I, too, am disturbed when I realize that state and federal budgetary groups can make statewide, nationwide impact by deciding what will or will not be budgeted. I'm equally disturbed when I hear comments that we don't have the bucks at the federal level; and with that, we sort of seem to pass the buck to the state.

I'm disturbed when I hear the naivete that industry will pick up or should pick up the tab for training their people. I don't know how it works in other states, but I know that with the salary levels at municipal government, we train them at the municipality - industry hires them. And so, in reality, we have been training for the industry. And I think it's time we quit fooling ourselves.

But I think I'm most disturbed as I see the states being told that they are to take up the training endeavor. Some of us are achieving some success in that, at least working in that direction. I'll be mentioning this tomorrow, at least for Illinois. I'm disturbed when I see things like tuition games played with the national training centers. Today there's tuition, tomorrow there's not tuition, next day there's tuition. We play the game.

I don't know, again, how it works in other states, but I am now committed, and there's nothing I can do about budgetary changes until a year called FY '77. Now, this makes it a little bit rough when we play games. I'd like to direct this to Joe. Just what are we going to do about Jeter's shop and being able to get some money in there so that we can get guys from our states down to places like Cincinnati, get them trained, and get them back so we can make some use of that capability to carry on this training endeavor we are supposed to take up?

I've got another important problem. In order to train in Illinois, I've got to have instructors. To get instructors, I've got to have some capability. I'm having problems getting things, like a book from Ken Hay, as I've indicated to you, Joe, personally.

MR. LOSTUMBO: Would you like me to start off on that, Joe? We have two training centers, as a matter of fact. There's the training center at Research Triangle Park, which is managed by Frank King. And then there's the training center in Cincinnati, managed by Harold Jeter.

With regard to the tuition fee, once again we have a policy conflict where OMB decreed that we would charge a user-fee or a tuition fee for agency direct training activities. Believe me, the Agency senior policy staff tried to do all they could do to overturn that decision, but to no avail. However, we have gotten some relief in the fact that waivers are available through the next fiscal year on a rather liberal policy, provided you have a sufficient justification. Now, Joe, I'll yield to you.

MR. BENNETT: Just a minute, Joe, before you start, because it is the cruel hoax of this that I'm disturbed about. When you went from no tuition to OMB's tuition, that simply ruled out for us any chance of sending people. The net result of that was that we did not budget something called travel and per diem expenses. You know, if you're not going to send anybody because you don't have tuition money, then you don't need travel and per diem. All right, so we have a budget sans travel, per diem and tuition.

Now, you come back to waiver, but I don't have travel funds. Now, where am I going to get enough to have travel funds? You know, the ball's got to stop bouncing somewhere, and I don't think you can abrogate your responsibilities away so easily at the federal level, and just say, today this is what we're going to do.

MR. LOSTUMBO: Well, the question - the core of the question is a deeper matter in terms of what federal policy is, and the Agency has certain constraints which it tries to carry out and provide technical assistance the best possible way that it can, given those constraints.

We here can't give you a policy decision or a policy ruling that EPA is suddenly going to shirk these constraints and reach its hand out and help you in the training area. That's why we've used CETA and other activities to get training through other mechanisms, because there isn't sufficient resource support. We've also tried to package programs to give to states, so that in some states they could train themselves as opposed to having to come to our activities, but even there, that's limited. So, it's not the kind of thing that we can say to you, yes, we're going to solve that problem and help you, because we can't ignore the policy constraints.

MR. BAHNICK: Probably the only way to make it settle down would be to put something in the federal law that says, "Training shall be provided without tuition." Otherwise, it's going to do this same kind of oscillation again and again, for year after year. I just don't see it settling down.

MR. LOSTUMBO: We're running out of time, but I see there's one more question. Joe, did you want to make a very quick comment, or did you want to pass.

A VOICE: Well, I was just going to say, on the strategy for our direct training, we're trying to move out of what's been defined as basic courses. We're having a little problem with this because one of the courses we wanted to cut back on or drop was an environmental statistics course, and here we find Region IV wanted this thing, and we did put it on. So, we're going to have to get some better definition on just what are these basic courses that we can drop and ones that we shouldn't drop, because they're required by state people. But I think the emphasis in our direct training will be for developing materials and training instructors, and hopefully we can get into putting on these advanced kinds of courses with the new treatment technology that might be coming out of our research.

MR. LOSTUMBO: We have one more question, here on the right, and then we're going to have to wrap up, because we're running a little late.

MR. O'NEIL: My name is Jerry O'Neil, and I'm with the California State Air Resources Board, which is about 320 people alone in just the air program. I think what disturbs me a little bit about the Conference is that you, for a national event like this where you have a very limited opportunity for people to get together anyway - I think it's a very limited scope.

CETA funding is a method. It's simply a tool. I'd like to find out from the panel generally what is EPA doing about affirmative action? Where I am, affirmative action is the name of the game. We're required to come up with a plan in California to clean up our work force, not just our air. We have to integrate women and minorities in our work force, and we have to provide for mobility.

I haven't heard a word from EPA about asking us if we are a federally funded agency for an affirmative action plan. I think if CETA is simply a kind of a--a sly tool to get us thinking about bringing in minorities and women, you ought to bring the whole issue out on the table. Are you really serious about affirmative action? What are you going to do about it?

MR. LOSTUMBO: Anyone on the panel wish to volunteer that answer? I don't know, and I'm not sure anyone here really does know, the true answer to that question. That's a damned good question. Maybe it's the kind of thing that, during the course of the Conference, we'll be bringing out some perspectives of that view and of that problem.

MR. O'NEIL: I know other federal agencies are asking states to come up with plans, and I know some federal employees are asking their own agencies where is their plan. If you're planning on coming out in one or two years and asking for it, I'd like to find out right now so the rest of us can start gearing up. We have one; we've spent five months developing it, over 2,500 people hours. If any of the agencies here today are interested in talking to me a little bit about it, I will be glad to share with you what we've done.

MR. LOSTUMBO: Fine. Hopefully, during the course of the Conference, we will be able to exchange some views on that with you and other people will, too. Thank you very much. I'd like to thank the panel for being present today, and I'd like to thank this splendid audience for participating in the discussion.

SELECTED ENVIRONMENTAL LEGISLATION: MANPOWER IMPLICATIONS

Robert G. Ryan
Office of Legislation - EPA

SELECTED ENVIRONMENTAL LEGISLATION:

MANPOWER IMPLICATIONS

ROBERT G. RYAN, Speaker

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MR. LOSTUMBO: At this time, I'd like to introduce our next speaker, Mr. Robert G. Ryan.

Bob was educated at Georgetown University and New York Law School and is a member of the Bar in New York State and the District of Columbia. He is a former Foreign Service Officer with the U.S. Department of State. He has been engaged in the private practice of law in New York State for the past four years. He is currently the Director of the Office of Legislation of the Environmental Protection Agency and he has been with us in that capacity since May of 1973.

MR. RYAN: Sitting in the audience this morning, I remember a day in the fall of 1972 when Bill Ruckleshaus was socked in at some lonely airport in the Pacific Northwest. He called me at the Washington office at 8:00 in the morning and asked me to make a speech for him before the Indianapolis Chamber of Commerce that afternoon at 1:00.

I got on a plane out at National about nine. The weather was very bad over Indianapolis and we were an hour circling the airport. Finally we got down and I dashed to the convention hall. I was ushered immediately up to the speakers' table and I told what I thought was a grand joke. I don't remember what it was right now, but it was a sensational joke or so I thought at the time. And I got absolutely no response from the audience. I thought, my goodness, these Hoosiers are lacking in a sense of humor. It turned out that two of the previous speakers that same day had told the same joke.

I thought of that occasion while sitting in the audience today because I am the Director of the Office of Legislation. My bag is legislation and dealing with the Congress, and it seems to me that every EPA speaker that we've had so far has touched on legislation in one way or another and stolen my thunder.

I should tell you that when I did come to this post, I made it clear to everyone that I talked to that I needed all the help I could get. I think my nostrum has sunk in; I'm getting more help than I expected in many of these areas.

But, I welcome it. I need it. I think the rule is and ought to be that Congressional relations and legislative matters are everybody's business at the EPA. To the extent that everybody here has talked about legislation today, I hope I'm not going to repeat anything they said like my joke in Indianapolis. But, maybe I can make a few observations which are somewhat different from their comments.

I am, as Mr. Lostumbo mentioned, a New Yorker, a New Yorker by birth and a resident of Maryland by choice. I remember at the time my first child was born in 1963, I went to a conference on pollution at the Association of the Bar of the City of New York where a representative from the mayor's office was answering questions about the environment in the city.

One of the questions from the floor was: "What about all that raw sewage that's being dumped into the Hudson River at 79th Street?"

And this fellow said, "Well, you have to remember that New York Harbor is tidal, and there is this marvelous flush action. The tides come up and it gets this foul waste and it scoops it out to sea. Next question."

I think if a representative of a public body made a statement like that today, the kind of statement that Mayor Wagner's representative made back in 1963, he would be subject to verbal, if not physical, abuse.

And I think that's a telling lesson because it shows how far we've come. My daughter is now 11 years old and we have a new ball game in this country. It's well, though, to remember that it's not so long ago that belching smokestacks and foul sewage being dumped raw into the rivers were looked upon by government officials and by businessmen alike as some sign of progress.

Since those not-so-distant years of the sixties we've had, I think, an agonizing reappraisal as John Foster Dulles, my former Secretary of State would have said, an agonizing reappraisal of some of our cherished notions about progress and growth and the way things ought to be.

It's clear to me that the environmental movement is here to stay. It is demonstrably true, as Time Magazine suggested in a recent issue that the environmental movement has become "institutionalized." You no longer hear talk about if we can or should protect the environment. Now we're down to very specific things. I noticed the questions to the last panel, very specific questions about how we do it; where we get the money; and how we carry it out and by what date.

It seems to me that what we have in our hands, and I think we're all part of it, and we should all be happy to be part of it, is a movement which - with the possible exception of the civil rights movement - is the most important sustained and unifying concensus movement in our recent past.

Now, Al Alm and other speakers have talked to you about the legislation which Congress has enacted in the last few years. Seventy-two was a fantastic year for us for legislative enactments, as you know. PL 92-500, the Noise Act, the Pesticides Act, the Ocean Dumping Act and so on.

Congress did lay some groundwork for manpower concerns in previous enactments. In the Comprehensive Employment Manpower and Training Act of 1973 - I suppose this is on the tip of all of our tongues right now; we're going to hear more about it this afternoon.

In 1966 Congress directed a complete investigation of environmental manpower needs at State and local levels to implement the provisions of the Clean Water Act of '66. The Congress also demanded an investigation of existing Federal programs for training needed personnel.

The report of these investigations, submitted in July of '67, documented a critical need for subprofessional training in the field of wastewater treatment. Further, the report identified the Manpower Development and Training Act and the cooperative manpower planning system as the vehicle for training these people.

This report early on acknowledged the relationship between success in protecting our environment and the support for manpower and training activities.

The fundamental thrust I suppose, when you strip away all the verbiage, of the recent enactments is to put EPA in the role of a regulatory and enforcement agency, with the implementation and the actual day-to-day carrying out of the statutes left to the states, and that means the manpower development ultimately left to the states.

You know all about the disengagement of direct funding of State and local programs. That decision means that State and local resources will have to be programmed through channels of other Federal agencies like HEW, Labor and Agriculture, and so on.

And your state's responsibility, I think it's fair to say, becomes to pick up where these Federal programs leave off. Your responsibility as manpower planners and developers, it seems to me, is to lay out for your states and to your legislatures the plans to meet your needs for training and employment of State and local environmental manpower. And we're going to help you do that.

In controlling water pollution the State's role, I think you all know, is expanding on an almost daily basis. The '72 amendments mean that $9 billion in contract authority ultimately will go into the economy, and this at a 75 percent Federal share. That means that $12 billion in construction of municipal wastewater facilities will be carried out in short order. That's a lot of money and it means a lot of people being employed, a lot of people doing good things.

I'd like to pick up on a theme which Al Alm started to develop this morning: that is to demolish some of the myths which are abroad in the land. One of the most widespread and most pernicious, in my judgment, is that environmental programs are somehow inflationary and they are the cause of unemployment. It simply is not true.

Administrator Train replied very well, I think, to this charge last month in testimony before Senator Proxmire's Joint Economic Committee. Let me quote some of the things which he said then:

> '"There is simply no evidence," he said, "that environmental requirements have had or will have a marked adverse impact on jobs or existing productive capacity, especially since investments in environmental protection create new markets and new jobs and new profit opportunities."
>
> '"There are now," he said, "some 55,000 people directly employed in EPA financed construction activity, and by the middle of 1977, that number will more than double to approximately 125,000."'

And that's direct. If you consider the indirect employment, it is even greater.

We are convinced at EPA that the inflationary effect of our activities will be next to nil. A study by Chase Econometrics, by the way, will be available shortly, and I urge you to get ahold of it and read it. I can flatly make the offer to send it to you if you'd let us know your addresses.

The Chase Econometric Study forecasts - well, let me quote again: "Pollution control programs will cause an average annual inflationary rate of about three-tenths of a percent for the period 1973 to 1978 and two-tenths of a percent for 1973 to 1982."

The next myth I think I'd like to puncture a hole in is that unemployed persons are traditionally unemployable and untrainable. This might be true in a tiny percentage of cases. For the vast majority, unemployed persons are unemployed through no fault of their own, and many are very well educated and perfectly suited for high levels of jobs that they're seeking. And others can be qualified for higher skilled jobs.

And then there is the persistent myth that training costs are too much and decrease the productivity of a particular operation.

In a study of an EPA administered public service careers program in North Central Texas, performed by the Harbridge House, it was shown that for every one dollar invested in treatment plant operator training, the incremental return in stock capital loss and equipment down time was $91. That's a pretty good figure.

In another study, done by the manager of water distribution for the City of Dallas, we find that the retention rate for trained personnel was 40 percent higher than the retention rate for untrained. And in addition, the retention of trained personnel in an occupation with a career potential will inevitably increase the tax base from which most of you as public administrators derive your operating budgets. So, it's good.

It appears then that there is a case where a skilled work force in environmental programs, and it's to everyone's advantage and everyone's benefit. The question is, how do we reach the point of full and proper staffing with adequate, qualified personnel? And that, in essence, is really what this Conference is all about.

As we go down the pike with the administration of so many of these statutes, we find that more and more people are needed. We've gone through with Mr. Schueneman the need in the air program, the water program, the solid waste. We have a Safe Drinking Water Bill which is on the President's desk right now. There will be personnel needed there.

Another area is recycling. By the way, I should bring you up to date: the Senate Public Works Committee will be meeting in executive session tomorrow, and it may report out its solid waste bill at that time. I'll keep you posted if you're interested.

Of more general interest to you, I think, is this proposed legislation specifically in the manpower area. Senator Taft has introduced a bill which is S4129, entitled the National Employment Assistance Act. The program is aimed at high unemployment areas. It would provide grants to the states by the Labor Department, including environmental improvement projects. It represents an opportunity for states to check unemployment while at the same time protecting the environment.

Last Thursday, the Educational and Labor Committee of the House approved a bill authorizing two billion dollars in Federal funds for State and local governments to hire jobless workers between now and June 30th. Representative Marvin Esch has said that if the bill becomes law, the President will request an immediate supplemental appropriation in the amount of one billion dollars to get this program started.

EPA has done some pioneering work, some of which you already know about, some of which you'll hear in the course of this Conference with the human resources agencies, namely HEW and Labor. We've shown that manpower and training programs can meet some portion of the environmental manpower needs that you have. Through interagency agreements and transfers of funds, EPA has piloted $15 million in programs designed to develop the State and local manpower development capabilities.

But, with the coming of the Comprehensive Employment and Training Act of '73 we're no longer providing the funds directly. We fully intend to keep working hard with Labor and HEW and provide technical assistance to you so that you can pick up this ball.

It's really up to you, in a way, to insure that the resources provided by the manpower revenue sharing are applied properly to meet your needs and similarly to insure that the Federal and State vocational educational system responds properly to the need for occupational development, technical training, pollution control workers.

As you will hear this afternoon, we've had significant success under CETA. In fact, the current figures demonstrate that by 1976 CETA will have provided more money for environmental manpower programs in one year than was provided in the five previous years under the old program.

So, if it succeeds, and I fervently hope that it will, this Conference should supply you with enough information so that you can go back to your states and do a good deal.

I was pleased to hear my friend from Albany over here talk about his pilot program in automobile inspection and maintenance. I think that's one of the blessings of a conference like this: you can plug into other people's ongoing projects and save yourself a lot of work and false starts.

If I may, before I get off and let you all go to lunch, I have a couple of suggestions which I think you might consider:

--I would urge you to pull all stops out and get together with your states' resource development agencies and make your needs known to them. I know you have in many instances, but make it a point. Search out your CETA prime sponsors and make yourself known to them;

--Actively develop and promote manpower programs through your own offices and the offices which you serve and try to provide for manpower placement capabilities in your own agencies through the state program grant;

--Be on the lookout for State legislation and monitor your state legislation which provides for training and education;

--Talk to your state assemblymen and senators. I know you do, but don't hesitate to make that effort. My own experience on the Hill has been that the more diligent and responsible the legislator, the more willing he is to listen to you and to heed you;

--If you haven't already done so, I think you ought to try to get representation on the state manpower planning councils and vocational education committees and make your views known.

--And finally, make your views known to EPA and together, I think we can do good things.

I said at the beginning that the environmental movement has become institutionalized and I stand by that statement. I don't think there is any doubt about it now but that does not mean by any stretch of the imagination that the job is over or anywhere near completion. Al Alm was right when he said this morning that 20 years from now we'll be looking back and we'll not be talking about details; we'll be talking about how we carried out the responsibilities that the Congress and the states had imposed upon us. In the long haul, we can do much together.

Please know that we appreciate your difficulties. We are not unmindful of them. We are mindful of the fact that we have made mistakes in the past at EPA. We are after all fallible human beings like the rest of the world. We hold out to you an unqualified pledge of cooperation and help wherever and whenever we can give it. We recognize, I think, that we need one another and that together we can do enormously good things for our country.

I thank you for your kind attention and I appreciate being here in this beautiful city today.

HOW ENVIRONMENTAL MANPOWER NEEDS CAN BE MET THROUGH CETA

John M. Ropes, Moderator
Environmental Protection Agency

Richard E. Bruner
Department of Labor

George Chartrand
Department of Labor

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Garrity-Sandage Associates, Inc.

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HOW ENVIRONMENTAL MANPOWER NEEDS CAN BE MET THROUGH CETA

JOHN M. ROPES, Panel Moderator

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MR. ROPES: We're going to ask our panel here, who are experts in the field of labor, to give the environmental people a dose of their own medicine this afternoon.

Seriously, I think that because we have a wedding or a marriage, we hope, of people in the environmental agencies who are interested in the proper development of manpower in their agencies and resource people who are here from the various manpower and education programs, we should take into consideration that we don't always talk the same language and that we're not always familiar with each other's pieces of legislation and the acronyms used as shortcuts.

Let me also say at the very outset that in no way do we mean to tell you today that we're going to solve all of your manpower needs with the programs that are going to be explained this afternoon.

We've been very successful in the past in the utilization of Manpower Development and Training Act Funds, and many of you here in the environmental agencies have used them, but we hope to also indicate to you how well we might use the Comprehensive Employment and Training Act.

Is Mr. Bennett from Illinois here?

Let me tell you, Mr. Bennett, we agree with you, too, about the user charge yo-yo that we've gone through with you on Direct Training.

For those of you who are not familiar with Direct Training, the verbiage we use in EPA, that just means the programs that EPA sponsors at various environmental centers around the country where our own staff provides very specialized training programs.

And the user charge we refer to, for those of you not familiar with the problem, is the charge that we had to levy on people attending the courses at the direction of people higher up. But, they were very appropriate, Mr. Bennett, and the proceedings of this meeting are being transcribed and we hope that they are referred to the proper levels following the meeting.

To the gentleman who made the queries to the panel this morning on affirmative action, we're going to look into that, and we're going to address your question before this meeting is over one way or another. Yes, we are interested and yes, we are going to find out about it.

The panel this morning that dealt with the various program strategies dealt with the manpower implications of several pieces of legislation, and as you are aware, in some of the legislation and some of the programs we have very specific needs. We know what they are. We've been able to measure them. These programs are a bit more sophisticated in analyzing what their manpower needs are at the state and local level. Others are in the process of doing that. But regardless of whether they have specific figures to give you, I don't think there should be any question but what we could arrive at the conclusion that there is a tremendous manpower and training need out there in state and local governments.

The Environmental Protection Agency has never involved itself and I don't think we will in the future, in the training of subprofessionals in any great numbers. Funds in small amounts are available in the various program activities for the development of curriculum, training aids and training materials that can assist you in the development of your programs.

We've always taken the view - and properly so - that there are agencies whose purpose is training, whose purpose is manpower development. For EPA to build a superstructure on top of these would just not be good business. So we have identified and worked with people in vocational education and in the Department of Labor under MDTA and now CETA to pick up on these needs. The people that are going to be on the panel today and tomorrow on the vocational education panel are here to try to impart to you who you will work with, who administers it, where it's administered, where the point of authority is and some insight into the funding process.

All these people here today I've worked with for many years now in Washington and they've been most generous. As has been pointed out too many times, I guess, the Department of Labor has given EPA over $15 million in the past five or six years which has come down to you at the state and local levels for training activities.

We regret on the one hand that they're not going to give us anymore money directly but on the other hand they are helping us find the mechanism and identify the system to get more money from the Comprehensive Employment and Training Act.

So, without further ado, the first panel member is Mr. Richard Brunner. He's from Region V in Chicago, with the Manpower Administration there and he's a specialist on policy issues so if any of you have questions, ask Dick.

He previously served as Regional Staff Coordinator for CETA Implementation Task Force and Coordinator for the Public Employment Program. He's a graduate of Heidelberg College and holds a Master of Science in Community Development from the University of Missouri.

Without further ado, Mr. Brunner.

MR. BRUNNER: I know this morning we began to hear a lot about the Comprehensive Employment and Training Act and I think that it's probably appropriate now - and I don't plan to waste too much of your time doing it - to go over each and every one of the basic provisions of that Act.

First of all, you already know that the Comprehensive Employment and Training Act basically decategorized manpower programs funded by the Department of Labor. It picked up where the Manpower Development and Training Act of 1962, the Economic Opportunity Act of '64 and '66 and the Emergency Employment Act of 1971 leave off. In fact, CETA supercedes all three pieces of legislation.

Basically, it's divided into six titles. I'm going to spend most of my time talking about Title I but let me go through all six so you can get a feel of what CETA does, and basically, I'm trying to give it to you from the perspective of the Department of Labor.

In other words, the thrust of this meeting is obviously aimed at the environment and environmental agencies. But let me give you an idea of how the Department of Labor sees the six titles of CETA and we'll see if there's a match; there should be a pretty good match.

First, Title I. Title I represents the basic multipurpose and flexible nature of CETA, as envisioned by the Department of Labor and provides funds to all cities and towns in each state. The population minimum is 100,000 to be considered a prime sponsor.

Basically, all the services including training, education, job creation, work experience and supportive services provided by the prior EOA and MDTA funds are possible under Title I.

The service population - those who are going to receive service under Title I - must be economically disadvantaged, underemployed or unemployed; there are definitions for each of these three categories. The prime sponsor has the option of determining the type and nature of programs and services he will offer in the CETA program.

Now, the Department of Labor really takes this seriously. We are not going to tell a prime sponsor, which is a local government or state, how to spend the money. It's up to them (prime sponsors) to decide, which means for you people, it's up to you to get them to decide in your favor on certain kinds of expenditures.

In addition to the basic Title I grant, which everybody gets, if it's got 100,000 population, each governor receives a governor's special grant. The governor's special grant is made up of three kinds of money. When I talk percentages now, I'm talking of percentage of the total Title I allocation.

One percent monies, are monies for the State Manpower Services Council which is basically a council set up involving state agencies, the governor's office and local jurisdiction along with certain specialized groups that are interested in manpower programs.

The second kind of money is the four percent money which is money for state manpower services which is basically open-ended funds that the governor can determine to use at his discretion for creating experimental programs, assisting in rural areas, quite open-ended.

Then there is the five percent money which is basically for vocational educational services across the state. Those are the three kinds of Title I funds.

In Title II, using the same prime sponsors again, counties, cities and states, with 100,000 population, plus the added provision of 6.5 percent unemployment or more, prime sponsors receive funds to create public service employment jobs. This will be discussed in more detail by another panel member. I'm sure you're all familiar with the EEA program and you're probably familiar with the Public Service Employment Program. Basically, it's subsidized employment.

Next is Title III(a). Title III(a) is meant to assist special manpower target groups such as exoffenders, Indian and Alaskan native communities, migrant and seasonal workers and, finally, youth and special program groups. This title will also be discussed in more detail by another member of the panel. It should however be noted that this title describes a variety of program concerns of historic and continuing interest to the Department of Labor, and I think to some extent, of interest to people in the environmental field.

Now the remaining titles of the Act are of somewhat less interest to this discussion but let me go through them quickly so you are aware of them.

The Title III(b) section provides limited research, training and evaluation funds. If anybody here feels they can develop an experimental project that has some major implications for dealing with manpower programs, I recommend that you review Section 311(b) of the Act. To my knowledge there has been no final decision made on who gets research money, although, I must tell you it's supposed to be quite limited in terms of the amount of dollars available.

Title IV continues the Job Corps Program.

Title V establishes the National Commission for Manpower Policy.

And finally, Title VI contains the general provisions and definitions to be used in operating CETA funds.

Now as a final note, you should be aware that generally speaking, any activities that are described in Title I, Title II or Title III(a) can be performed with the funds received from the other two titles.

In other words, if you want to run a Public Service Employment Program and you have Title I funds, no problem. If you want to run a training program with Title II funds, no problem. If you have Title III funds and you want to do Public Service Employment or Training, no problem.

Now at this point in time, from the kind of reviews I've had of prime sponsors' plans, I have not seen a lot of flexibility in terms of using Title I or Title II, although there is some of this going on, or using Title II for Title I. There hasn't been a lot of "cross-pollination" between the titles but the Act allows for it and in the future we expect to see more of it.

But now let's return to what Title I can do for you in the environmental field.

First of all, Title I is, I think, the basic vehicle for providing substantial environmental education, training and employment needs as long as people are CETA eligible clientele.

The state as you know already is a recipient of two grants. The regular or balance of state grant for Title I serves the balance of state, meaning any area that is not in the property of another prime sponsor; generally, it has a tendency to be the rural areas of the state. It is the basic grant I feel that a state agency in the environmental field should go after. The state environmental agency needs to know - and this has been brought up this morning, but let me repeat it - the agency has got to know the director and the staff responsible for carrying out the CETA programs. That's the first touchstone to get into this program.

The Act requires, as mentioned this morning, under the basic Title I grant that every state have a Prime Sponsor's Planning Council. As I read the regulations pertaining to the Prime Sponsor's Planning Council, there is no question that the environmental agency has every right to sit on that council. I think you should be represented.

The state environmental agency should have already or be in the process of submitting plans and programs to the CETA staff aimed at meeting joint CETA environmental goals. Such programs and plans, and this will be discussed I think a little later in the program, might include vocational training programs, on-the-job training programs, work experience programs or public service employment programs in the environmental field.

Again, the decisions on what kind of programs will exist in the CETA plan are made at the state level or local level. The Federal Government is no longer determining what kind of programs a grantee will run.

The second Title I grant, the Special Governor's Grant, provides, as previously mentioned, three types of funds. In most states, the staffing for both state grants overlaps. In other words, the same people that operate the balance of state grants generally tend to operate the Governor's Special Grant. However, there is a requirement for a State Manpower Service Council under the Special Governor's Grant. Generally, this council does not overlap with the Prime Sponsor's Planning Council under the regular Title I grant.

It is even more clear in the special grant that an EPA representative, an environmental state agency person, has an obvious interest in sitting on the Manpower Service Council.

The special grant, unlike the regular grant, is meant to serve the entire state. It is not limited to just the balance of state area or those areas that didn't have the population to qualify to get their own prime sponsors. This grant serves the entire state.

Of particular interest, I think, to the people in the environmental field is that four percent of the portion of the grant aimed at manpower services, because this allows for the development of model training and employment programs among other allowable activities.

The questions I think the environmental state agency has to ask itself if it wishes to be involved in the CETA process or already have asked itself if it is involved are: (1) Do you know the state CETA operations director or staff? (2) Are you or did you attempt to be a member of the State Manpower Services Council or State Prime Sponsor Planning Council? (3) Do you have a plan, or did you submit a plan to be involved in CETA?

If you can't answer positively to all three of these questions, odds are you probably are receiving little, if any, CETA services or funds.

I have had an opportunity to look at a review conducted for EPA which will be discussed later in this program. How much CETA money is being used for environmental needs (and again this was mentioned this morning)? The figure of 15.5 million dollars, on the basis of a partial review of CETA grants. These represent - 15.5 million - less that one percent of CETA funds. While I think it's a pretty fair state in some areas, you'll notice that this is not evenly distributed across the country. Certain regions have more - others have very little. I think less than one percent, nationally, leaves a lot a room for improvement. I recommend that there be a greater degree of cooperation and coordination developed at the following levels:

For one, as a regional person in the Department of Labor, I recommend that - we started this in Chicago - there be more inter-relationships on issues and problems between regional EPA and manpower administration staff. This would benefit you in the sense that your regional people, regional EPA staff, through discussions with manpower staff can provide you with, if you don't have it already, the names of contact people in state CETA organizations. Also with copies of CETA information and CETA policy, which will give you an idea of what direction the Department of Labor is going.

Let me add a note of caution. The Department of Labor has taken a definite hands-off posture in terms of what a prime sponsor chooses to do with his money. But by the same token, we would like our prime sponsors to know about every opportunity available in their area, so they design the most comprehensive programs possible.

My second concern is, I think the state environmental agency has to develop and continue a linkage between the state CETA operation and itself. I think this is not a one-time shot to pick up funds but should be a continuing relationship so that you are aware of what the CETA staff wants and they're aware of what you want.

CETA is still new enough to accept new ideas and programs in the majority of states. Remember when you contact CETA counterpart staff in your state, they control the money. This means that prior to your contact, I think you should know something about CETA. I think you should know that what you're proposing makes sense from the CETA standpoint, not just your own, and finally, I think you're going to have to accept the reality of compromise because I think that some of you might have found out already what the CETA staff wants is not necessarily just one hundred percent what you want.

If you talked with CETA people four to six months ago and drafted some plans, you probably got pretty much what you wanted. I think if you wait another four to six months, you have a good chance of not getting anything.

As far as the Manpower Administration is concerned, the more proposals, plans and concepts that go to the CETA staff the better and more well-rounded the program. The primary CETA goal, as the Department of Labor sees it, is to create employment.

In the long run we feel that environmentally related jobs, hoping that current economic conditions will change, represent a very promising area for employment expansion.

Title I can pay for the education, training and hiring of environmental workers. If you have not tried to be involved in CETA, or if you are involved - and on close review, it is really quite limited - I think you're missing a chance at the only substantial Federal monies which are available to cover these costs at the present time.

MR. ROPES: Thank you, Dick. Our next panelist is Mr. George Chartrand. George is the Deputy Director for Manpower Administration in Region III for the States of Maryland, Delaware and the District of Columbia.

He is a graduate of New York University and has done postgraduate work at NYU and holds a degree in Vocational and Technical Education.

George is eminently qualified to speak on this subject because, like myself, he's a young fellow that's been involved in this program a long time, from its very inception in fact, and he dates back to the Manpower Development and Training Act, you know.

George is an educator who has been busy and effective in many private businesses. He's been Assistant Professor of Management at the University of Delaware and has served as a consultant to many industries in the Delaware area.

In addition, he has contributed articles on management and training to outstanding national publications prior to his joining with the Department of Labor in 1966.

It's a pleasure to introduce Mr. George Chartrand.

MR. CHARTRAND: It was agreed by the panel that one of our objectives really is to make certain that the appointed EPA environmental officials in the state particularly, particularly the appointed officials of environmental departments in the various states, be made aware of the fact that they play a key role in getting CETA money to support environmental training in their respective areas.

As Dick pointed out, you should be active, either on the State Manpower Advisory Council or the Prime Sponsor Planning Council. If you're not, what part can you play?

Number one, you can develop and you must develop a good working relationship with your prime sponsors through your Advisory Council - that's either the State Manpower Advisory Council or the Prime Sponsor Planning Council, and you can do this simply - as an appointed official, use your influence with the planning council to place CETA participants in various environmental jobs.

You can survey the jobs that currently exist in your department for projected demands, replacement needs and/or expansion in relation to the projected supply of labor in your respective area.

You know, the planning councils need a lot of help, and only through your expertise in areas of environmental training needs and so forth can they gain from this knowledge that you have and really be an effective planning council.

You can also advise on current labor union practices affecting industry, your upgrading of employees in various environmental occupations.

Or you can inform the planning council and also prime sponsors inventory of manpower resources available under the auspices of EPA, such as the scholarships that exist at the Greenville Technical Education Center or at Charles County Community College in Maryland, and/or there might be other air or water programs being conducted by HEW and/or the state vocational education departments.

You can let the planning councils know that these exist and, frankly, participate. There is a great need for the planning councils to be educated.

You can advise them on preferred training conditions and design employment opportunities.

You can identify those environmental occupations in your department which are hardest to fill on a continuing basis. Perhaps you might have to get into job creation or job restructuring. Discuss this particular point with your prime sponsor. How do they view this job creation and this job restructuring? Money can be made available for job restructuring and job creation.

In addition, you can advise on the quality and the acceptability of current manpower or other programs which exist in your state that have an impact on environmental training needs.

These are only a few of the ideas, a few of the suggestions that I wanted to share with you this afternoon. How can you become active, even if you are not on the planning council or the advisory council? You can be a resource person, and believe me, they need a lot of help and a lot of luck in their endeavors.

MR. ROPES: Our next panelist is a longtime friend of mine, a native of the State of Iowa. Shirley Sandage is the President of Shirley Sandage Associates, Incorporated. She is an officer at the National Center for Human Development and she serves as a consultant to the U.S. Department of Labor and the Special Task Force on Rural Problems and Welfare Reform Planning.

She has been a consultant to State and local governments or rural and migrant problems and she has in the past been the Director of the Migrant Action Program in Iowa and Minnesota.

She's the author of the book, "Child of Hope," and has written numerous articles in professional journals on the problems of migrant workers and transitory workers.

Shirley is a graduate of Cornell College in Mount Vernon, Iowa, and I could tell you, from many, many long years of experience she has run some very fine manpower programs and human resources programs. She is most knowledgeable in the field of migrant workers and for the utilization of migrant workers in the environmental field. Shirley Sandage.

MS. SANDAGE: When I opened the door of my hotel room this morning, I picked up a complimentary copy of the Phoenix Republic. At the top, in the right-hand corner, I saw "Today's Chuckle." I would like to read it to you. It says, "The quickest way to become an old dog is to stop learning new tricks."

I think what we might say to you this morning, "If you are to survive long enough to become an old dog, you'd better learn new tricks."

And that is what we're talking about today: new manpower programs, and new approaches to manpower programs. The passage of the decategorized and decentralized manpower bill generally called CETA meant that in the future we would look to State and local governments to provide the coordination of governmental resources and programs that long have been lacking.

As a part of the CETA bill, Congress provided for special target groups under Title III which included Federal administrative responsibility at the national level of programs for migrants and Indians; and empowered the Secretary of Labor to establish programs to aid offenders, youth and older workers; to develop a comprehensive system of labor market information to develop computerized job placement - develop a system to aid persons of limited English speaking ability and, as Mr. Brunner pointed out, establish research, experimental and demonstration programs. Prime sponsors must also provide for evaluation of all programs established under the Act.

In short, I guess, Title III of CETA is a "catch-all" section in which we have identified persons and programs with particularly difficult social and/or economic problems for special national attention and have funneled reserved funds to serve these particular groups. We believe without an emphasis of planned intervention, entry-level jobs with potential for career development and advancement would undoubtedly go to people who are presently entering the job market in increasing numbers due to dislocation caused by the current economic climate.

In truth, within the next 30 months, we are going to see a revamping of the present job market and of the labor market. However visionary the architects of CETA were initially, certainly today CETA offers the most rational approach to determining how the disadvantaged will fare in the future job market. We are going to have to put away unrealistic expectations and to recognize and determine the limited number of jobs and resources that are available and identify just exactly what employment options exist and how those options will be utilized or distributed.

Coordination of facts and utilization of resources is certainly going to be a continued watch word. You who have addressed human problems before are going to encounter a variety of difficulties and unmade decision that are different from those faced under MDTA. You are now in what we call bottoms up planning, where the scope and the direction of the program is well developed from the local and from the state levels and pulled together in a comprehensive manpower program to aid and serve those groups you identify as the most in need.

As we look at EPA agencies, we look at you as a source of countless numbers of new jobs. You identified to us this morning - in listening to your presentation - that you are unique among most governmental agencies today, in that you are presiding over an expanding job market. It seems to me that there is a natural wedding then of CETA legislation and of the Environmental Protection Agency manpower needs.

I thought Bob Ryan this morning discussed this very well in bringing to your attention your need to become environmental manpower development specialists. Perhaps out of this Conference will come the new job classification of "environmental manpower development specialist," because in planning you will have to be very much aware of all the resources in your state; not just CETA but also educational resources such as vocational education and vocational rehabilitation. CETA cannot take care of all of your manpower training needs. Your technicians and professional personnel needed at the state and local levels must be trained from these other sources of revenue as well as the established EPA training centers. EPA agencies need to identify exactly what their needs are and look at their state to determine how they can best integrate all such resources into their over-all planning to meet manpower needs.

By endeavoring to have manpower capability established in each metropolitan area, EPA hopes to fix responsibility for a coordinated approach to cooperative manpower planning. Title III of CETA, by providing supplemental funds for training and assisting specific disadvantaged groups in relation to the job market should not be overlooked by your agencies as you plan to meet your manpower needs.

Because the Environmental Protection Agency in Washington is looking at the farmworker group, I would like to discuss with you this afternoon specifically how environmental planners might work with their state or with a Title III Section 303 CETA agency to develop a program to help allieviate both your need for trained manpower and the employment needs of this particular group.

Title III Section 303 CETA programs may include the following major activities or services: it will pay for classroom training or on-the-job training, work experience training and services to clients, which includes all supportive services, such as health and medical services, nutritional services, residential support, legal services, child care services, relocation assistance or other supportive services; and services, such as outreach, intake and assessment, orientation, counseling, referral to training, job development, job placement and transportation and other activities such as economic development. Now, there's a program mix for you!

CETA prime sponsors, as well as other public and private nonprofit groups are eligible applicants. However, the Act requires the Secretary, whenever possible, to utilize Indian tribes, bands or groups for provision of manpower services to reservation Indians.

By this time, State environmental agencies should have gathered occupation and manpower requirement information and have available public and private industrial projected needs. If you have not already identified the manpower training needs of your jurisdiction by the four broad environmental classifications of equipment operation, technology, technology and education and science and research, you should do so. In addition, these should be further broken down into specific localized needs - needs that are mandated by state and local laws and regulation, or by new plant construction, soil conservation projects, wastewater treatment programs, controlled use of pesticides and herbicides to meet the need for increased food production and land use and other activities undertaken that affect the environment.

In other words, take a look at your specific manpower classifications, break them down to where you can project there will be need - manpower need - to where there will be jobs. Once you have done this, evaluate the identified need for potential entry-level jobs, since farmworkers - and that's the group we're talking about this afternoon - will have had little or no previous experience in related activities, yet do have demonstrated ability in farm related fields such as pest and weed control. You will then need to acquaint yourself with the migrant and seasonal farmworker groups in your jurisdiction. You will need to know something of the dimension of the farmworker problems, because don't forget that CETA, under all three titles, is to serve disadvantaged, underemployed and unemployed. Title III recognizes migrants as one of the special target groups. Therefore, you will need to become very well acquainted with the problems that are faced by this group.

Farmworker problems are compounded by the lack of any explicit Federal manpower policy for agriculture and the fact that a large portion of the farmworker force is still excluded from the benefits and protection of major labor legislation. However, I should like to point out that enough statistical evidence exists to conclusively demonstrate that migrants and seasonal farmworkers are among the most disadvantaged of any group in the work force today. They are generally underpaid, undereducated, poorly housed, receive inadequate health care and have no occupational upward mobility. I cannot think of a single case where a member of the migrant or seasonal farmworker group would not be qualified participants in CETA. One of the important things that you should know is that members of the migrant and seasonal farmworker work force, by the very fact of their migrancy, are demonstrating a willingness to work, a desire to work, and a desire to work under very difficult conditions. Therefore, if you elect to develop a CETA environmental manpower program to train migrant and seasonal farmworkers, the participants you are working with will undoubtedly show a high degree of success and a high degree of retention in the program.

The problem with farmworkers is one of an unstructured and unstable work force, working in labor intensive seasonal employment. Unfortunately, or perhaps fortunately, the increased exchange of capital for labor, changes in mechanization and increased technology in agriculture has resulted in a diminished need for farmworkers. A study conducted jointly by the Department of Health, Education and Welfare and the Department of Labor in 1973 concluded that most migrants and seasonal farmworkers would prefer to move out of seasonal agricultural work if they had other options with respect to employment.

A recent survey conducted by the Economic Research Service shows that out of 1,037,000 farmworkers, both migratory and nonmigratory, whose major source of income is farm wage work, white farmworkers comprised 52.5 percent of that total; the remainder was made up of 18.7 percent Spanish-American; 16.3 black; and 2.5 percent other.

Of this total 169,000 were from families with incomes below the poverty line.

Once your manpower needs are identified and matched with the potential skills of the available farmworker group, you should contact your Governor's office and any prime sponsors in your area. If there is a migrant agency in your state, they will know about it and put you in contact with that agency. Undoubtedly the migrant agency will have been designated the Title III CETA agency for your state and will already have submitted to the National Office of Programs in Washington, D.C. a plan that they will be anxious to discuss with you.

In addition, you should work with your state and local employment security office. They have placed a high national priority on providing the full range of manpower services to migrant workers, and are under a United States District Court Order to provide outreach services to inform migrants of available manpower services and how they may benefit from participation. The employment office should also be a valuable resource for the recruitment, selection and referral process and can also provide assistance in task analysis and job restructuring that may be involved. They may provide work experience tests and other tests to determine a particular applicant's or participant's potential for success in the training program.

To a lesser degree, welfare food stamp offices may also provide you with information as well as the Department of Agriculture's Stabilization and Conservation Committee.

The important thing is to use your imagination in identifying the existing and potential job opportunities that could be available to migrant and seasonal farmworkers with the training and supportive services available through Title III of CETA. Because of CETA regulations the bulk of these funds must be available for direct services to migrants and farmworkers. Performance criteria for programs operated under Section 303 are very high. Because of these performance criteria, I believe you will find the Title III CETA agency very diligent in providing follow-up to training programs and in providing the necessary supportive and manpower services to ensure a jointly successful training and environmental placement program.

You should develop an employer relations program as well. You may ask the Title III CETA agency to develop the program, or you may prefer to develop it yourself. However, the important thing is that you develop a cooperative program with the Title III CETA agency that is tailormade to meet your needs and the needs of the participants from the farmworkers group.

Once you have agreed upon a cooperative program, you will want to design curricula that considers the probable limited use of the English language of the participants. Talk to your vocational education people and to your community colleges. Talk to other training resources as well, public and private. Your State Manpower Planning and Services Council should be brought into your planning very early, as they may be able to identify additional resources. The national office can provide or arrange for additional technical assistance to help you design your training program.

The national office of the Manpower Administration, USDOL is presently in the process of considering applications for Title III Section 303 programs. They have already identified potential qualified applicants. Forty-one are former Title III (b) Office of Economic Opportunity applicants; thirty-three are CETA Title I applicants, six are community action agencies; and the balance are private, nonprofit organizations. Your State Manpower Services Council or your Governor's office will be able to tell you who their agencies are in your state.

It is not too early for you to begin to plan to make application to the Manpower Administration for direct Title III funding in fiscal year '77. However, if you decide to develop a manpower program for farmworkers this year, you will have to tie into one of the Title III CETA agencies that have already been designated as qualified for FY'76.

Although we've been talking mainly about the farmworker group, we should remember that the environmental field offers potential for many part-time or half-time jobs that could be of interest to older workers or to youth, such as water testing and sampling. EPA presently has some projects with reservation Indians and there is great potential here. On November the 25th of this year, the Senate passed and sent to the House a bill to provide an expanded health care program for American Indians at a cost of 1.6 billion dollars for five years. Among other provisions it provides for improved water supplies and waste disposal systems. If finally passed and signed into law, there will be need for additional training programs for Indian workers, not only at entry-level, but also for upgrading, supervisory positions as well.

Certainly if you are located in an area near reservation Indians, you will want to look into this. A cooperative Environmental Protection Agency and Title III CETA program could provide the necessary training and certification for career employment and occupational advancement.

It's clear in reviewing the wide range of possible program components and services authorized and funded under CETA, Title III that a linkage with the expanding job market of the environmental field would be highly desirable and beneficial to a large number of workers who have previously had limited access to the job market. Just as importantly, they offer a valuable human resource to industry that is expected to require more and better trained people, and industries who are already forecasting the available supply of trained personnel as inadequate. The actual new entry level for trained personnel apparently far exceeds the supply. Funds available through CETA can supply the training and supportive services to these special target groups, the voices at the back door.

MR. ROPES: Our final speaker today is Mr. Fred C. Bolton. Fred is with the U.S. Department of Labor in Washington, D.C. He's been a teacher for 27 years in the D.C. Public Schools and the University of Maryland and the University of Nancy, France.

Fred operated the GED program which many of you oldtimers in the Army will remember and it's still continuing; he still works with the Department of the Army and the GED people.

He's operated management training programs for the Bureau of Employment Security and the Manpower Administration for two years.

He helped establish the Department of Human Resources in the District of Columbia, and is head of the unit on DOL Welfare Reform Planning Staff for Bob Paul who is now head of the Manpower Policy Commission. He's been with the Job Corps and with the Comprehensive Employment and Training Act from its very inception.

MR. BOLTON: Thank you, John. I certainly appreciate the opportunity you've afforded me to come down to the fine State of Arizona and the great City of Phoenix and to partake of this marvelous sunshine and beautiful mountains, and its fine food.

Also, I welcome the opportunity to appear with my colleagues. I've discovered that we're sort of - well, not incestuous, but we do work around together. George and I did tours in Job Corps; Shirley and I were on the Welfare Reform Planning staff together; and Dick and I have been working together in CETA.

I shall endeavor to support those colleagues and try not to cause them too much trouble because they've got to stay and face you for the next few days, while I wing off to another conference.

I'll hazard a few generalizations, venture a few homilies and talk to three points. As most national office people, I'll keep it general. I'd like to talk a little about the state of the economy and the CETA program and people in CETA - which I consider very important.

It should be clear to you that we're in bad times in terms of the economy. Last Friday, BLS, a counterpart organization in the Department of Labor, announced a six and a half percent unemployment rate, and if you're familiar with their data, you are aware that that is certainly not an exaggeration. If it errs at all, it would be on the under side because of the nature of the data.

There are nearly six million Americans without work in this country who want to work. There are more Americans out of work now than there have been at any other time since 1940. Now, we're not at the fourteen and a half percent unemployment rate of 1940. But we're a much larger labor force and there's a lot more people out of work.

Five hundred and sixty some thousand more workers have joined the unemployment roles in the last month. There are 1.9 million more unemployed than there were in November of '73. More job layoffs have been reported since the data was collected for the month of November.

And certainly the December unemployment rate might well approach the seven percent mark. The December figure was 7.1%. The January data will reflect post-Christmas seasonal lay-offs. God knows what it will be.

There is a drop in total employment of nearly 800,000 so we're down to a working labor force of 85.7 million. And the civilian labor force has declined by three hundred and some thousand, and it goes on and on. I'm quoting from an article in the Dallas Morning News of last Saturday. That's a grim scene, ladies and gentlemen, and it's going to get grimmer.

CETA has two and a half billion dollars to spend this year and it has about a billion of that in Title II, which is Public Service Employment and which is the primary concern of this Conference.

There are plenty of PSE slots in this country unfilled. We estimate that of the six million Americans unemployed, there are only about 60,000 who have found some sort of income under Public Service Employment.

We estimate that with the billion dollars that we have put out since last June, there has been an absolute minimum of 130,000 positions available on an annual funding and if, as we prefer, all of the money is expended by June 30, we're up to 180,000 or 190,000 slots, but only about 60,000 actually drawing a check under PSE.

It's imperative that those jobs be filled, and there are a number of us wandering around the countryside trying to persuade prime sponsors to fill those jobs. It certainly is a very opportune moment for me to encourage you to help get those jobs filled.

The specifics of what jobs and what people must conform with the CETA design. It must meet the eligibility criteria and it must make sense in terms of the local prime sponsor's problems.

But, surely, if you are seeking manpower, and if there is a six and a half percent unemployment rate, and if you cannot effect a marriage at the local level, somebody is not working very hard at it. I'll return to that in a moment.

Not only is there a billion dollars in Public Service money now in the pipeline, but we anticipate that perhaps by Christmas, certainly in January, there's going to be even more money.

There are various proposals on the Hill. The President has submitted the National

Emergency Assistance Act which would extend unemployment insurance to persons now unemployed and would certainly, if you will, infranchise or entitle, many of the people Shirley was describing, and which will put money in people's pockets.

Another part of that program will very definitely fund additional Public Service Employment programs. There is no partisan argument about the necessity for more Public Service Employment.

Now, everybody's favorite game in Washington is second-guessing the Congress, and I'm not going to indulge in that. I don't know what kind of "trigger out" it's going to be; I don't know whose bill will prevail or what the length of unemployment responsibility has to be or what the PSE entitlement is and all of those things. I don't know what the appropriation level is going to be. I just know there's going to be more money out there because Public Service Employment is viewed by all members of the political spectrum as a necessity in coping with a six and a half percent unemployment rate that's on the rise.

We have a lot of people in our system who are concerned about the mortgage. They say, "Well, you know, I don't want to hire somebody for the remaining five or six months of the year; what will I do after the 1st of July?"

I think it is fruitless to speculate too much on just what form that Public Service bill will take, but the fact that there's a billion dollars out there and the fact that it is not yet being spent and that there's more money on the way is ample proof of my contention that there are plenty and plenty of opportunities for you to help with this massive problem.

We are, as I mentioned, trying to persuade prime sponsors to spend that money. We are doing it several ways. One is through direct and informal contact. Another is that we shall very shortly, through national issuances, be persuading prime sponsors to re-examine plans they put together last June.

It's a perfectly logical assumption that a plan that was put together in April or May or June, under the economic conditions then prevailing may not be absolutely germane and on target in January.

So it is logical that all CETA sponsors take the money they now have and re-examine the intended use of that money in terms of the changed economy.

That gives you an opportunity, if you've missed out on the first round of doling out the money at the local level. It gives you another opportunity to try again. It gives you another opportunity to help the CETA manager with his problems which are to insure that the people of that district are served and that there is an effort to help with the unemployment problem.

In addition to replanning, we're asking prime sponsors to engage in contingency planning. That's our way of saying we don't know what Congress is going to do so be prepared for anything. Again, it's a common sense proposition. It might well be a worthy investment of your time, as my colleagues have suggested, to contact your local counterpart in the CETA program and say, "Hey, I know you don't know what they're going to do next, but if something happens, I've got a plan. Here it is. Put it on the shelf - not file 13 - and there may be a chance for us to do something down the pike."

There is plenty of opportunity through CETA to meet many of the EPA manpower needs, plenty of opportunity. Let me suggest, again to reinforce my colleagues, that you focus on the possible. There is so much that can be done within a clearly defined boundry that one should not waste time arguing about the outer limits of Federal policy or the outer limits of the local political options.

I know that you are very much concerned about upgrading. I know that you are very much concerned about our definition of eligibility and our definition of unemployment. All right. Those are policy questions that Congress is addressing; the administration will do what it can.

But, aside from those, which really try to probe the frontiers of a legitimate use of this money, well within that perimeter is an enormous opportunity, at entry-level jobs, an enormous opportunity to train, an enormous opportunity to employ the unemployed.

With luck the new bill that passes through Congress will relieve us perhaps for a specified period of time of the disadvantaged unemployed problem. I look at that as a two-sided question. The primary purpose of manpower programs is to provide service to the unemployed and the disadvantaged, and that should and must remain the primary purpose or focus of manpower programs. Title I is for the disadvantaged: The people who do not have the opportunities and privileges that you and I, by virtue of our presence here, so obviously enjoy.

Now, in a declining economy, you obviously provide alternative sources for "non-disadvantaged" people. Perhaps, as I say, there will be monies for that purpose in this new legislation. For the moment, there are not. Please don't be too rough on Dick and George as they try to stick to that line.

Look within the art of the possible. There's plenty there to be done.

I'd like to make one third point and that concerns people staffing the CETA system, and that specifically includes you. We're dealing with a system in change. Someone said - I guess it was Dick - that the only constant is change. We've made enormous changes in the way we do business over the last year, and we're only half way through that. We're trying to change people from CAMPS planners into program operators. We are trying to change regional people from compliance officers into technical assistants and we're trying to change ourselves from dictators and meddlers into helpers.

Everybody is involved in this change, and we are in - at the risk of exaggerating - a magnificent experiment in government in this country. We ask that you help us with that: that you bear with us; that you tolerate us in our paranoia, in our egocentricities, in our frustration, and that you help all of us. Join the move forward.

Not only are we changing the system, but just as we change the old categorical programs into CETA, the economy is changing on us, so that some of the concepts on which our program is built, which are very valid in an expanding economy, perhaps need re-examination in a contracting one. Now, that's tricky, ladies and gentlemen, and none of us pretend to know all of the answers.

I would like to say in closing that the people in this system have a joint problem, and you are part of that. We are in bad times in the economy, and there are still a great number of people who were on bad times when the rest of the economy was living well. That's what we're all about, ladies and gentlemen, and if we keep the focus on helping those people, it certainly will make life better for all of us. Thank you.

MR. ROPES: Thank you, Fred. We will entertain questions from the floor now.

MR. LINDSAY: I'm Roy Lindsay from Jefferson Parish, Louisiana.

Mr. Bolton, you had mentioned, insofar as the Public Service Employment, I just want to clear something up in my mind, under the Title II, I believe, that the manpower funding will handle Public Service Employment for one year, and then it would be up to the local agencies to take care of the funding after that. Is that correct, insofar as employment?

MR. BOLTON: Well, you're referring to transition. Incidentally, Dick knows much more about policies than I do, but you're referring, I believe, to the transition goal and let me point out that that is a goal. There is no transition requirement under CETA. The prime sponsor is required to establish a goal for transmitting people from subsidized to unsubsidized employment and that's what it is, a goal.

MR. LINDSAY: In other words, there's no - is there a limitation - there isn't a limitation of one year?

MR. BOLTON: No, no.

MR. LINDSAY: So, conceivably, the Federal Government could foot the bill, for instance, on programs of this type for a number of years?

MR. BOLTON: Let's take it year by year. Let's get that six and a half percent employed.

MR. LINDSAY: OK. Fine, great.

MR. ROPES: Yes, sir?

MR. WRIGHT: My name is John Wright, from Santa Fe, New Mexico. My question is to Shirley Sandage.

She mentioned four areas that the Manpower Planning Report should cover. I caught technology, operational and scientific, but I couldn't catch the rest of that; I couldn't quite get those four areas. Could you go over that again, please?

MS. SANDAGE: In addition that would be technology and education, and science and research. There are four broad classifications that EPA designates in defining the areas in which they work. Under each of these you break it down into job classifications, such as wastewater treatment - the kinds of jobs you were talking about this morning. For your own jurisdictional area, you identify what your potential and actual manpower needs are as a basis for any kind of planning.

MR. ROPES: Mr. Wright, we have some forms on that in our office. We'd be glad to - if this will give some commonality in language, we'll get them to you.

The gentleman in the back row?

MR. PENN: Bob Penn from the Kentucky Department of Natural Resources, Environmental Protection.

I would like to react to what I've experienced with CETA and EPA this past year. Would this be the proper time to do this?

MR. ROPES: I don't know what you're asking.

MR. PENN: Mr. Brunner listed three things he thought we should do with CETA, and we have done these, and we've evidently got to go a lot further than that.

I kind of equate this trying to convince the Manpower Council that we do have environmental needs to the time that my wife caught - she didn't catch me; I wasn't guilty, but I had a red spot on my collar and I tried to convince her that it was ink instead of lipstick.

I've run into the same thing - we got to know the director of our Manpower agency pretty well, and this all started in 1973 when a letter, you know, came across the Governor's desk and I got about the 23rd Thermofax copy that said we could possible get money this way. So we started asking for it. The one good thing that developed out of it, we did develop needs within our department, training and within the State of Kentucky in the environmental field.

From there we make a plan, we got to know the Council real well and we were on the Council. About the time that I learned their lingo, they disbanded the Council and set up a new Manpower Services Council, which we were omitted from.

MR. ROPES: We're running out of time. I would like to move on to the next question please.

MR. COOK: I'm Harold Cook, Manager of Public Works with the State and County of Denver. My question is directed to Mr. Fred Bolton.

As you know, the cities are having a terrible problem just trying to maintain our present programs in environmentally oriented projects such as solid waste and wastewater.

My question is this: What is the possibility of using CETA funds for maintaining current jobs in these programs?

MR. BOLTON: You've put your finger on a problem area I'd hoped I could hit and run; about a program designed for an expanding economy and being applied in a contracting one. I trust that you've discussed this with Joe Lambrecht and Marty Flahive and that you're at least together on it.

It's a problem that more and more of the cities throughout the country are facing. There was an enormous expansion of local government services through the sixties, and an enormous buildup of those programs and those budgets. I just came here from the National League of Cities Conference and those mayors were so worried about meeting their payrolls that they really had difficulty worrying about the national economy. I must say that's a very real concern.

We have two principals in CETA that focus around the problem. One is the maintenance of effort requirement, and the other is the transition requirement. Sorry, strike that. In EEA there was a transition requirement; there is the principal of transition in CETA.

I guess the only comment that I can make is that there must be a 30-day layoff and that any proposal that comes to our regional offices that proposes putting on more Public Service Employment people into slots or positions that have just been abolished, we would look at it closely and see that there was fair play, that there was no effort to ride the Federal fund, that there was an honest contraction of the personnel base in the jurisdiction. Once we had satisfied ourselves that there was an honest contraction of the base, that there was a legitimate layoff, and that the unemployment requirement had been satisfied, then I suppose Public Service Employment is appropriate.

MR. HARRIS: My name is Lee Harris, and I'm from South Dakota. I figured I'd better get up and ask a question and let everybody know we're here.

I have one question that can either be answered by Mr. Bolton or Mr. Brunner, although this is probably a personal question.

If the current trend in unemployment does continue, what's the possibility of Public Service programs set up under the guidelines of the old work projects administration? To handle the scope of the problem, isn't it like that that type of set up is going to have to occur?

MR. BOLTON: We could only speculate on that and it would probably be inappropriate on my part. Such proposals have been introduced in the Congress; they've been subject to subcommittee hearings. Certainly, it's pure speculation.

MR. ROPES: Thank you.

I think we'd better move on. There's going to be a panel follow this that's going to deal with what a number of state people have done in developing data programs, and viewing from the panel members, it's going to be very interesting and very effective. Some of the questions you might have could follow that panel.

Ladies and gentlemen, I'd like to personally ask you to join me in a round of applause for these fellows because for five years, six years now, our office has spent more time over with the Department of Labor, and in carrying money bags over the years that has gone out to the State environmental agencies, and these are the fellows for all of you here who are with environmental agencies that made all the MDTA money available to begin with.

PROGRESS REPORT ON UTILIZATION OF CETA

William F. Hagan, Moderator
Environmental Protection Agency

Darold E. Albright
National Field Research Center, Inc.

John R. Wright
New Mexico Environmental Improvement Agency

George A. Kinias
Indiana Vocational Technical College

Chris Beck
Connecticut Department of Environmental Protection

PROGRESS REPORT ON

UTILIZATION OF CETA

WILLIAM F. HAGAN, Panel Moderator

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MR. HAGAN: I think at the beginning we're going to try to streamline this particular session, in order to allow for more question and answer time. It would be nice if we could confine our questions and our answers to the particular subject; however, we wouldn't feel too averse to slight deviations.

The thought that comes to mind here, as I stand up here bewildered and overwhelmed by all these policy makers, is what Dr. Harlan Randolph, the former president of Federal City College in Washington, said at the recent 11th Annual Joint Apprenticeship and Training Committee for the International Union of Operating Engineers at Orlando. Dr. Randolph said one of the things that really strikes the theme of this Conference.

I'd like to share that with you. I'm paraphrasing, but I wish I could quote him on it. He said, "To the extent that you as educators and/or trainers can show that education and training generate wealth, so too, should the resources be made available commensurate with that level of activity."

And I think that's exactly what we're trying to show. The topic of this conversation is a Progress Report on Utilization of CETA Funds, Titles I and II. What appeared to be a rather dismal effort through the discontinuation of interagency activities started back in Federal Water Quality Administration days has taken a delightful upswing. When we consider that, as was stated earlier, the amount of dollars equalled this year under CETA is surpassing the amount of dollars formerly available through national contracts between EPA, DOL and HEW, and that's a rather startling fact.

However, that $15.3 million that's been impacted by the environmental agencies, either directly or indirectly, for environmental manpower activities, only represents something a little less than one percent of CETA funding that is available. Taken in that respect it doesn't seem too delightful.

This data has been extracted from three hundred and seventy some prime sponsor plans, and whether or not the environmental agency at the local or state level or our regional offices were aware of it, there is a significant amount of activity that is going unnoticed.

I think Dr. Albright, in his presentation, can give us some ideas as to the possibilities of maybe parallel systems operating within our states. We may not have a good information system whereby we can extract the real data or the hard data.

With this in mind, I would like to introduce Dr. Darold Albright, who is President of National Field Research Center. That operation was retained by EPA to perform a study on the impact that environmental activities have had on CETA and vice versa.

Dr. Albright is from Iowa City, Iowa. He received his Bachelor of Science degree from Iowa State University, his Masters from the University of Iowa and his Ph.D. from the University of Iowa. He also went to the University of Northern Iowa and Drake University. He is a private consultant, so he doesn't represent a governmental agency, and at this time, I'd like you to welcome Dr. Albright.

DR. ALBRIGHT: Thank you, Bill. I'm reminded right now of the comments made by

Robert Ryan this morning, at which time he told of arriving in Indianapolis, and having somebody already telling all his jokes. I'm arriving here having somebody already given all my speech. I still have the jokes, though.

The Environmental Protection Agency, in the past, as had been stated, administered several national MDTA and/or OJT interagency agreements designed to provide job related and job opportunity training for over 6,000 individuals.

These programs represented major Federal assistance available to State and local jurisdictions for environmental subprofessional training. With the signing into law the Comprehensive Employment and Training Act in December 1973, the bulk of the funds for national program activities has been distributed directly to the State and local prime sponsors for their discretionary use in manpower programs.

It has, therefore, become essential that State and local officials utilize newly available CETA funds as well as other fund sources, to enable them to continue environmental occupational training within their respective jurisdictions.

Recognizing the need for information, background and training, the Environmental Protection Agency contracted with the National Field Research Center to develop background material to provide training to regional and state environmental officials. This was done in April and May of this year. Three informational booklets were subsequently produced. One was an instructional tool for programs review on CETA and proposal development. Seondly, a sample CETA plan, abbreviated. And thirdly, a sample CETA plan, detailed.

Upon completion and review of the materials, training seminars were scheduled and carried out in eight of the ten Federal regions. Each seminar, although designed to cover the Comprehensive Employment and Training Act, was tailored to meet the needs of the participating groups. The first such training session was held at Philadelphia on April 3rd and 4th, 1974. The final session was held on May 8th in Seattle.

In addition to conducting these training sessions, the developed materials were provided for persons in all regions of the country. More than 60 regional and state people participated in the direct training phase, and more than 300 sets of booklets and training aids were distributed.

The Office of Education and Manpower Planning of the EPA assisted its regional offices and state agencies in developing plans to submit to prime sponsors. This effort generated the need for data on funds impacted and/or training slots reserved. This data is essential in terms of future planning by all agencies.

Therefore, a second research project was initiated to: research the national environmental manpower training activities proposed under plans developed by prime sponsors throughout the nation. Secondly, to collect data on funding levels, training slots, and innovative programs, as it relates to environmental agencies, and thirdly, prepare a final report for dissemination to state and regional environmental agencies.

My report today is a result of the information collection phase. The study was initiated with letters to every prime sponsor, which were mailed on October 5th. Subsequently, follow-up letters were mailed on October 16th, 1974, and at the end of October, all prime sponsors who had not responded were personally called. Each plan was read and critiqued upon receipt, and the results of such study form the body of this report. The author of the report and reader of all plans is with us at this Conference, Elizabeth Nielsen. She will be happy to visit with you later on concerning this project.

With this time frame, it's little wonder that we at NFRC feel a little like the crap shooter who moved into the Las Vegas gambling parlor, laid a thousand dollars down on the table, picked up the dice and rolled them. As he did, a third one came right out of his sleeve and onto the table. The man operating the table looked down at the dice, picked one up, put it in his pocket, picked the other two up and handed them back to him, and said, "Go ahead and roll, sir. Your point is 15." We at NFRC feel that we have been trying to roll 15 with two dice for the last month and a half.

We have prime sponsors who have still not had their plans printed; they will be forthcoming. Plans vary from 10 pages in length to over 600 pages in length. And, some copies were extremely poorly printed.

In order to gain reliability in the data-gathering process, it was necessary to develop a uniform strategy for extracting information from the plans and arriving at the estimates presented. One of the few items that can consistently be found in the CETA plan is the project operating plan. This project operating plan contains financial projections for each general program activity. Total projected expenditures for the year were utilized in arriving at the environmental funding projection.

The narrative portion of each plan, describing activities and services, were then studied in order to ascertain if any environmental programs or job slots were included. If not explicityly stated, estimates were made as to the specific funding level. If only wages were stated for environmental jobs, such as those taken from other service employment occupational summaries, an extra 15 percent was added on to cover costs of administrative, supportive services and fringe benefits.

After the environmental costs were extracted from the appropriate service category of the project operating plan, study of the narrative again was undertaken to determine which activities or portions of activities listed on this plan were definitely slotted for areas other than environmental, and the funding level again was estimated.

Finally, allocations which were not predetermined as far as occupational areas are concerned were then estimated. At this point, estimates had been reached concerning use of funds, that is, environmental or nonenvironmental, for each of the following categories: classroom training, on-the-job training, public service employment, work experience, other, and projected expenditures for supplemental vocational education grants to Governors.

To conclude, the allocations for services to clients were added proportionately to each of the three cost estimates. It should be noted that non-CETA funds were not included in these estimates, that is funds that were raised at the local level. Special vocational education funds were included, as they are usually an integral part of the CETA program. For this reason, and considering the practice of carry-over funds, total expenditures are not always equal to the prime sponsor's allocation. Every effort throughout the study was made to err on the side of the conservative.

In total, 322 Title I plans or abstracts have been reviewed to this point. This will be updated as a result of some of the ones that are currently being printed coming in, and a final report will be available by the first of January. Nonetheless, it amounts to about 80 percent of the Title I plans. Seventy-three Title II plans and two Title II abstracts were also estimated. In viewing the data, it is hoped that persons who look at it will not view the figures as exact representations in CETA programs. Many limitations exist which contribute to the questionable preciseness of the figures.

Several of these are: (1) Not all prime sponsors' plans were received and reviewed. (2) Funds that were unslotted occupationally at the time of the writing of the plan may be filled at this time. (3) Many occupations were slotted that could be environmental in nature, but the ambiguity was such that these slots could not be counted as environmental. For instance, public works trainees or utility men. (4) Plans differed greatly in their lucidity. Many were ambiguous enough that estimates were extremely difficult to arrive at without a great deal of speculation. (5) Time constraints were very tight. Something approaching immediate turnaround was requested of the prime sponsors. For many reasons, this was not always possible.

The conclusion should not be reached that the data is therefore invalid. It is valid to the extent that the reader understands that the figures are representations of reality, not reality itself.

A great variety of environmental positions was found in reading and compiling the information. Specific positions were located and categorized in the following areas: Air pollution, pesticides, conservation, environmental research, public water, wastewater, solid waste and sanitation, environmental maintenance and beautification, support, and then we had a miscellaneous category which had such things as: apprentice biological technician, environmental quality inspector, pollution abatement aid.

We are currently abstracting some of these exemplary or innovative programs, not necessarily those limited to environmental areas. Copies of the resulting booklets will be distributed to regional and state environmental personnel for future use.

Of prime importance to this group is the total of funds impacted under this effort the first time around. The figure we have arrived at is over $15 million, exactly $15,338,765.00, which has to be a cause for a sense of pride for persons associated with this effort. The source of pride can only be momentary though, because efforts must now begin - and they have, as you will hear in other parts of this Conference - to do several things: (1) Produce actual training and career opportunities. Funds are impacted; now, do the job. (2) Begin intensive efforts on CETA Title II. (3) Continue work in impacting nondesignated slots for environmental areas. A lot of money is yet available under these plans, under Title I. (4) Begin work on other funding areas of benefit to the environment, and (6) As Mr. Bolton just pointed out, gear up for other employment producing opportunities which are obviously going to be forthcoming as a result of the rising unemployment rate.

In summary, I'm reminded of a short interview conducted by a reporter with a newly elected Congressman. The reporter asked the Congressman about his reaction to ignorance and apathy. The freshman Congressman replied, "I don't know and I don't care." Persons in environmental areas cannot afford not to know and not to care. An abstract of the results of this study will be passed out later in this session.

MR. HAGAN: Thank you, Darold. One of the points that I think might be made here, as we go on to our next speaker, is that manpower programs in and of themselves are virtually useless unless they are attached to some type of industrial development activity - and I say industry in a very wide sense of the word to include environmental protection programs.

One of the main functions of our Commerce Department and our Labor Department and our human resource development people should be to attempt to identify the activities in our economy which could use manpower services. I think in this respect environmental activity is one of the best.

Our next speaker is a native Hoosier from Indianapolis, Indiana. He has a Masters in Sanitary Engineering from Purdue University in Lafayette, Indiana. He moved to New Mexico in 1962 and since 1965 has been the State Water Pollution Control Administrator for the State of New Mexico.

He is presently a member of the Environmental Protection Agency, Technical Advisory Group on Municipal Wastewater Systems, representing the Association of Interstate Water Pollution Control Administrators, at that group. I'd like to introduce Mr. John Wright.

MR. WRIGHT: Basically, what we did in New Mexico was study the need for environmental manpower, particularly in the water and wastewater field. We did a specific study and came up with about 666 man years of needed effort, and then we considered on top of that the construction programs in wastewater and water supply, the new mandatory certification act for wastewater and water system operating personnel and the changing needs of the permit program, NPDES, and the need for monitoring and telling the story back to EPA. We made the decision that we're going to need some additional manpower for water supply and pollution control and thought about how to go after it, and we started searching for funds.

Approximately two years ago, we were tipped off by Gene Chappelear, our EPA Regional Manpower Officer that MDTA money was phasing out and that it was going to be up to the Governor's Comprehensive Manpower Planning Council. We didn't pay much attention - we forgot about it. Then last year, Jocelyn Kempe came by and said, "Look, now, CETA is the thing and you're going to have to get on the stick."

We received some guidance package from EPA's Bill Hagan and actually sat down and read them. After about six man weeks effort, we developed an initial proposal to the Governor's Manpower Planning Council for funding a two-year college level program for leading to an Associates of Arts Degree in Wastewater and Water Utility Management. The proposal also called for a continuation of our 44 week on-the-job training program for currently employed operators. The request was for $150,000. And now we've thrown on top of that overall environmental improvement agency manpower needs and kicked the request up to about a half a million.

We decided on a plan of attack, a strategy, on how to go about securing the money. We decided to work closely with municipalities, the Municipal League, the State Legislature, and the Governor's Office. From February to September we worked hard on the project.

At this time, I'm going to ad lib, and I'm going to discuss how George Chartrand, in his discussion with you, the honest side about how to get the money. I want to tell you about the real side of how to get the money.

We studied the Comprehensive Employment and Training Act, we read it, and we read the Federal regulations that came out, and it was soon that we realized we knew more about than the Governor's Comprehensive Manpower Planning Council. There were only two individuals over in the Governor's office that had the slightest idea what was going on. There was a lady who was assigned to them from the Federal Government and one of the planners, about the third echelon down. The rest of the bureaucrats didn't even read the damned stuff. We knew that the Governor was going to make the ultimate decision, particularly on the categorical on special funding, and any names, places or episodes that I use in this discussion are purely fictional, and any resemblance to actual persons is an inadvertent accident.

Basically, we hit the legislative finance committee. The chairman of the House Finance Committee happened to have just received the first construction grant under PL 92-500 that went to step three. That took some fancy footwork, but once it was done, we had one chit that we could pull.

The chairman of the Senate Finance Committee had sponsored at the Governor's request the previous year, a construction grant funding program for drinking water supply systems, and when his community came in for an application - his hometown came in for an application, they didn't fit the needs. And when he got a hold of my neck, you can tell what happened to the rest of me.

We did some more fancy footwork, got the Mayor back in and straightened out the application, so we made sure that that community got some construction money. That was another chit we could pull.

The assistant director of the agency happened to grow up in the streets and fighting with the - public works - no, actually - what's the head guy in the municipality?

MR. HAGAN: Mayor?

MR. WRIGHT: No, no, no, the guy that works.

MR. HAGAN: City manager?

MR. WRIGHT: City manager. He grew up with the city manager in one of these small communities. And this particular city manager was the kind of guy who would call the Governor for us. That was another chit we pulled.

I talked about working closely with the Municipal League. Actually, what we did, we followed the Municipal League around like spies, and we made absolutely certain that every comment that was made by the Municipal League Director to the State Legislature was recorded.

We worked quite closely with the head of the State Planning Office, and he did not respect our judgment when we were guessing about the needs for manpower training.

Finally, but not of all least, Peaches Tafoya can call the Governor and say, "Hey, Bruce, I've got to have such and such done." Well, we happened to know that - the environmental improvement citizens group knew Peaches quite well, and we didn't exactly have the Governor in a compromising position, but we did have a little chit we could pull.

So finally, it boiled down to the Comprehensive Manpower Planning Commission in the Governor's office; they did support our request. Of course, we tactively reduced our request from all of the environmental improvement agency activities from half a million dollars back down to the hundred and fifty in water and sewage. We also tactively reduced that to $50,000 just for the manpower needs for starting the short school, but we did receive the stipend funding through the local counties, and that was a project in itself, because we had to go to each county and educate the county on how CETA money could be given from an applicant from that county to go to a school in another county.

The results. The school began on schedule with 12 students and a full-time instructor. By the close of the year, we expect to receive approximately $50,000 from EPA and $50,000 through CETA. By the way, all this time that we were working along, we decided to hedge our bet and apply for 104(g)(1) money as well as CETA money. We ended up getting them both.

Next year, we hope to secure another $30,000 from 104(g)(1). I have to say that the New Mexico State University, Dona Ana Branch had to take a portion of the CETA money to hire one employee to keep track of the CETA requirements and go after additional students to meet the CETA guidelines.

On the whole, we were successful in our dealings with CETA and are quite pleased with the results, but for the individuals on my staff at the university involved in the process from February to September, it was traumatic. It wasn't until the last day, when school was about to start, that we had anything concrete in writing that we could assure the students of some funding.

To sum it up, this is the way it works. Do your job well. Know the other guy's job. Do his job for him and thank him for letting you do it. Do twice as much behind the scene as you do direct, and it helps to have a chit you can pull, such as, you can make him an offer he can't afford to refuse.

MR. HAGAN: Our next speaker is George Kinias. He is the Chairman of the Environmental Technology Division of the Indiana Vocational Technical Council. George holds a Masters of Science degree in Environmental Engineering from the University of Cincinnati. He got his BS in Civil Engineering from Valparaiso. George is a Class 3 Certified Wastewater Operator in the State of Indiana and the author of an industrial wastewater treatment training manual.

Now, one of our things we've wanted to stress here is how we do and how we don't do, and George is the living proof - and I don't mean this derogatorily, George - that in some cases we don't make it; we don't get CETA funding. And I think this experience, if George will share it with us, might explain some of the things not to do when you're approaching your CETA prime sponsor or your Governor's Council.

MR. KINIAS: I think after I heard John talk I know what I should have done. I think we went too much by the book.

Since I arrived here, I have made a couple of interesting observations. One is, Phoenix and Gary have one thing in common. The folks from Phoenix will tell you, and of course, they make claims about - that this is the land of the infinite sunshine, and I go along with them. The folks from Gary, on the other hand, will offer you an unconditional guarantee that you can have 365 days of gray skies.

The second scientific observation I have made, is that since I came here to Phoenix, I noticed a very peculiar odor in the air. To put it in scientific terms, clean air smells funny.

As Bill mentioned, I do come from an educational institution in Gary, Indiana, and I will try to talk to you today exactly from that standpoint. Not as a government agent, but from an educational point of view. The things that you should and some of the things you should not do about securing funds with CETA.

Our experience in Gary with environmental training, I'm sure, is quite different than in most of the other states, due to the unique and very serious problems which we face with air pollution, water pollution, and also with the lack of individuals receiving the training to do the job which is needed.

As of today, we have not had an experience to do training through CETA funds. However, in the past three or four years, through EPA, Region V funds and through some of the DOL funds, we have been able to do training in both entry and upgrading level in wastewater operation, in air pollution and solid waste disposal.

Even though we have not had an experience with CETA funding, I will try to describe to you some of the mechanisms we have developed in securing the training funds needed to conduct this kind of training. These mechanisms consist of basically three components. One, assessing the manpower needs for that particular area. Two, develop a training plan to meet the manpower needs for the area. Three, develop the training capabilities to be able to do the job.

In assessing the manpower needs of the area, we have used what we call Local Environmental Advisory Boards. Members from the municipal and industrial sectors are serving on these advisory boards; their objective to give us the feedback as to what the manpower needs of the area are in relation to environmental training. At the same time, we utilize whatever information is available to us through the State Board of Health as far as priorities and needs for training in particular geographical areas.

Some of the problems, Bill mentioned, that we have encountered with CETA funding are in the two following areas: one is the availability of the funds, and two, that we have a very unique problem in Gary. The Northwest region of the Indiana Vocational and Technical College has five prime sponsors. The City of Gary, the City of Hammond, Lake County, La Porte County, and the balance of the seven counties.

This presents a particularly difficult problem for us, because it's becoming difficult to develop a training plan to be able to serve those particular areas. How can you develop a plan, for instance, to help - serve Gary, which has a particular need with, let's say upgrading wastewater treatment plant operators, when they have a need for only four or five. This is not enough to write a proposal.

The same thing will happen with Hammond or the counties which I mentioned, so this is a problem which we face. I hope maybe somebody from the audience or the following panels will address themselves to this particular problem which is unique to our area, and it's very difficult for us to come up with a particular plan to be able to serve the manpower needs of upper Western Indiana.

About four to six months ago, we submitted a proposal to the City of Gary, one of the prime sponsors I mentioned previously. Mr. Bruner a while ago mentioned that if you have submitted a proposal four to six months ago, you have a very good chance to get just about what you wanted. Well, we've got news for you. We submitted a proposal. The agents from the City of Gary, CETA - as a matter of fact - were very pleased. It was an excellent proposal, and we had a very good chance to secure our funds.

The months went by, and we kept asking them about the starting date. This made it particularly difficult for us because we have developed, to a certain extent, some training capabilities in the college, and we had to know whether or not we could maintain our present personnel or we should let them go. And also, we had to make sure whether or not we had to use the facilities for CETA training or for other kinds of training, because Ivy-Tech is a state vocational technical college and has responsibility to do other kinds of training.

We did not receive any response from Gary. However, they told us that the original proposal, which was $75,000, had to be trimmed down to about $55,000. Now, keep in mind that the budget Gary CETA was expecting to receive was in the neighborhood of about $7 million, and they thought $75,000 was too much for environmental training in Gary. Again, the months went by. We kept pressing them to give us a response as to what we should do. As a matter of fact, they said they could not give us a definite response prior to one to two weeks before the starting date of the training.

Now, this is something I'd like to bring up that nobody has brought up so far. As an educator, I'm concerned about providing "quality education." Also, as an environmentalist, I'm concerned about answering the manpower needs in the environmental field. However, it becomes increasingly difficult to do either when you're faced with situations like the one we had to face, that we could not go out and hire teachers; we could not go out and order supplies; we could not commit our facilities until the actual starting date. Now, for any of you who might be teachers or educators, you understand that this is absurd.

One final point I'd like to make is that one of the gentlemen of a previous panel here stated that the objectives of CETA are to provide the disadvantaged people the opportunity to be employable. My question is: How can they be employable unless they are trained to be so?

MR. HAGAN: Our next speaker is the Deputy Commissioner for Environmental Quality Division of the Department of Environmental Protection in the State of Connecticut, and as such, he has the purview over the air, water and solid waste programs for the State of Connecticut.

He is formerly the Director of the Air Compliance Unit for that department, where he organized and directed the professional and technical activities of the State's air pollution control programs. He is a member of the Air Pollution Control Association and is on the Board of Directors of the New England Section of the APCA, on the Technical Advisory Committee with a National Science Foundation grant for electrical energy supply studies he conducted in the New York area and was a recipient of a U.S. Public Health Fellowship and has been active in many public service programs.

In December of 1973, Deputy Commissioner Beck was appointed Administrator of the Connecticut Energy Emergency Agency by special order of Governor Thomas J. Meskill. He served at this post until he was appointed Chairman of the Connecticut Energy Advisory Board in September 1974. Deputy Commissioner Beck has also served on the Governot's task force on oil refineries. Without any further introduction, I present Commissioner Beck.

MR. BECK: He said that he was going to introduce me by saying, the best wine you save for last. I'd like to congratulate all the speakers who went before me today for being able to demonstrate their strength in making their presentations, because I know how difficult it must have been.

But, the speakers today spoke the truth, and a lot of what I was going to say has already been pointed out by them. But I think that it would be important for me to give you my perception of some of the thoughts that they presented to you.

I think the panel this morning spent a great deal of time talking about Federal legislation and what it has done to the environmental programs in the last three to four years. I should point out that our state agency is a mirror image of EPA, and the division that I head up has essentially all of the same programs that EPA has and not only includes air, water and solid waste, but radiation, noise and pesticides.

I think that we have seen the effect of what I like to call staff amplification, and that's when you take one sentence of law, give it to EPA, and it comes out in a 40-page set of guidelines and regulations. And we've seen that done with our hard efforts to clean up the environment, and I don't mean to be critical of EPA, because I do support what they do, and I share the same objectives that they have, and frankly I know full well and good that the training staff, the manpower staff of EPA is way underfunded. They can't support the necessary training activities that must take place at state agencies and it's that problem that is our problem, trying to maximize funds and turn to wherever we can to carry out the essential jobs, which are in essence, mandated by Federal law.

I'd like to just tick off very quickly what's happened to our Department of Environmental Protection since it was organized in October 1971.

It was just about at that time that we had to create an air implementation plan. Most of you have heard of this. It's a program to clean up the air and meet Federal ambient air standards. We had 15 people at that time, when this department was created, and that's just about when I came to DEP. When I left to become Commissioner, we had 150 people, and that's the result of the Clean Air Act of 1970.

In the solid waste program, we have millions and millions of tons of garbage to get rid of in the State of Connecticut, and in the last three years, it's grown from a staff of five to 21.

The Pesticides Act, that's being implemented in two years by the Federal Government, has been implemented by our legislature in October of '74, this year. This means that we've had to establish a registration program and a training program for certified operators, and I want to tell you that's one bear of a program. When that's implemented statewide, or nationwide, you're going to find that there is going to be far more than 10,000 people that are going to need training, or 100,000 people, and there better be resources made available to states to carry it out, because that program is killing us right now. We have eight people who are working full time, just on the certification program. Well, as I say, these are very real responsibilities, very important responsibilities, objectives that we really embrace. Our problem as administrators is to try to find a way to get the resources to carry them out.

About a year ago a fellow came into us from our State Personnel Department, an he said to me, "You know, we have some WIN money, Work Incentive Money." We haven't talked much about that today, but I think we're going to be talking about it tomorrow. And, "We can put people to work for you in your program - 100 percent of the salary the first year, 75 percent of the salary the second year, 50 percent of the salary the third year, to help you carry out some of these programs." The thing that concerned me was the fact that they were welfare recipients, people who had not had any skills or any training in the area of environment.

So, a year and a half ago, when that gentleman came in, I said, "I just don't think that we could take on any of these recipients, because my people aren't trained to give them the necessary skills that they'll need to be productive. It's a fine program, and I think it's a wonderful social goal, but it's something I think that the department cannot carry out."

Then the CETA Act came along, and we began to see that there was potential for training monies to give people who are underemployed and unemployed training and skills so that they could be useful within our department. CETA also could be useful to communities that we had delegated some of our responsibilities to, or put new mandates on.

With that training money becoming available, there was one missing piece, for me, to give the go ahead and say let's take the WIN recipients and let's train them, and that was that there was a real lack of supervisors or people who were skilled in: 1) establishing the training programs, and 2) giving the special counseling that's necessary for the individuals to become productive, because really, that is something that is the overall objective of the program.

So, EPA, in June, gave us a grant for $75,000, and loaned to us one of its people from the Kansas City Region to come and head up the program. And with that now, we have the three pieces that are necessary for us to put in place an effective training program. We have WIN monies, which total about $400,000 and that's to hire people, train them and pay for their salary a hundred percent the first year. We have CETA training money obligated in the amount of $973,000 to run the other necessary training program. We have a Federal grant to hire the people to supervise the training courses and the individuals to make them productive, and with that, I think that Connecticut is beginning to move to overcome some of the shortages that we now have in terms of training programs.

Now, we're planning on putting some WIN people into the CETA training programs; one, because they qualify for the training programs, and open up the training program for other people in the field who need further training, thereby getting around the necessary quotas to have the training program, and we're thinking of training programs in many areas. One of the things I want to caution this group about is, I think we're limiting our vision to the application of some of these training monies. I've heard an awful lot about training sewage treatment plant operators, but I don't think that the CETA money begins or stops with that program.

In the State of Connecticut, we have a State Building Code, and we use the State Building Code as a mechanism to implement our permit programs for water, for solid waste and for air pollution controls. Every city needs a building inspector who is trained to carry out that Building Code, and we're using CETA monies to set up a training program to train building inspectors who will, in part, carry out the environmental mandate.

We're using the CETA training monies to develop a crew of technicians, monitoring technicians, who can help our technical staff in carrying out the necessary implementation of our air monitoring and water pollution monitoring programs.

Sewage treatment plant operators; we have a program for them. We've run it under the MDTA program and we plan to continue it under the CETA program. We're just changing our state code for installation of subsurface disposal systems, septic tanks. We're updating that code, making it more stringent, because we've found many failures in our state, thus putting us into a situation where we have to sewer many parts of the state that normally wouldn't be necessary if the systems were designed appropriately.

We're using the CETA training money to train a work force of people who can review installation of subsurface disposal systems and make them available to the communities so that the communities can carry out their programs.

There's a whole range of offshoot programs which we are not immediately thinking about, but I think have potential for future application for CETA monies. Every one of the municipalities in the State of Connecticut needs to develop a 20-year plan for disposal of their garbage, and most of the communities in the State of Connecticut, because they're small, have got to rely on the old technology of burying it and landfilling it.

The unfortunate things about the lack of talent at the muncipality is that they don't have soil scientists or hydrogeologists or hydrologists on the staff that can help them to carry out an effective sanitary landfill operation and two, to help them locate potential new sites for landfilling. I think one of the things that CETA training monies can be used for is to train landfill operators who aren't necessarily the guys who run the bulldozers, but people who understand the technology of solid waste disposal.

You can give individuals limited skills in the areas that they need to carry out effective sanitary public health wise, safe operations. You can't hire a specialist today. No municipality can do it, but I think you can train the specialist and make him available to the cities.

We have a training program in the State of Connecticut for landfill operators right now. Presently, each landfill needs a certified operator, and I think that this is one of the applications that we'll be looking forward to in the future for CETA monies.

The last area, and this is probably the most important but the most distant in terms of application, is in the area of land use. In the State of Connecticut, we have a very controversial issue, and it's known as state zoning. Every municipality does not want the state to enter into its development decisions. But, by the same token, the municipalities are becoming increasingly aware that the ambient air standards, the water quality standards, and all the other environmental standards put limitations to their growth and that they have to grow within their natural resource limitations.

The unfortunate thing is that most of the communities don't have the individuals on their payroll that could advise them how to grow properly. Many of the cities have planning and zoning agencies and some full-time staff, but none of them are really specialists in terms of environmental controls. They know an awful lot about other things, like the economics of the community, or the social problems of the community, the transportation problems of the community, and I see in the future applications of CETA funds to upgrade individuals in planning and zoning agencies, to give them the skills to make sure that the natural resource limitations, and the environmental standards are adhered to. I think it's important for the community, and I think it's terribly important for us in the environmental area.

The programs I've outlined to you I think you can see are of benefit to the Department of Environmental Protection and are of very significant benefit to the municipalities. And when you deal with a prime sponsor, the important thing that you have to tell them is, this is how our department is impacting your municipality. This is the service that we can give you, or these are the individuals that we can train to assist your municipality. That's a very strong argument, and it's essentially been the argument that we want the CETA funding, and I think that in the future, many states are going to be capitalizing on these sums of money. It's an important sum of money to try to get into our coffers to carry out the very real mandate that's been placed on us by EPA, the legislatures and the Congress, and it's only with this funding will we be able to really meet our mandate.

MR. HAGAN: At this point, I'd like to throw the panel open to question and answer for as long as we can do it. Are there any eager beavers out there who have questions?

MR. LOTHROP: Yes, my name is Tom Lothrop. I'm with the Portland Water District and here with one other individual representing the Wastewater Control Association, and over today's session I've been sitting here with growing frustrations in listening to a lot of the information that's being passed through.

While CETA certainly does appear to have a useful benefit in many areas, I'd just like to comment a little bit on some of the problems that we've had up in the great State of Maine. One of our primary goals of the Association is - it's an operators association - is to do what we can in the training field.

One of the problems we have in the State of Maine is the state agency, which is understaffed to do the job, the big job that it has to do. So, as a result, training, as in so many agencies has taken a low priority. They pay lip service to it basically, and that's about the extent they get involved in it. So, the Association, over the past number of years, has been involved. At the beginning of this particular calendar year, we were able to get some MDTA funds to put on a training course in Western Maine. It went quite successfully. Unfortunately, we got into the program just as it was dissolving, so we were then informed that CETA was the new ballgame, so we went to the various councils, the staff, the CAMPS groups as they called it, and put in an application.

Now, this was back in Maine, as one of the gentlemen said on the previous panel, if we had put in an application four to six months ago, we'd be in good shape. We're not in good shape at this particular point in Maine. Our basic goal or emphasis with the technical training program that we had put on the first of this year and want to continue in other parts of the state was more along the line of an upgrading, and I know there were also some references made earlier about the fact that CETA really does not provide for upgrading.

Now, it seems to be an awful gap here that has been somewhat mentioned, but it really hasn't been directly eluded to here. We've got so many new treatment plants that are going to be going on line, so many billions of dollars going into this, we've got primaries going to secondaries, we've got so much of a need for manpower, and here is this gap that exists with trying to get operators now who are in many cases inadequately trained as it is; they are employed - they're not unemployed or underemployed, but to bring these guys up, to get them up to a level so that you can create new entry slots. Now, it isn't a question. It's just been simply twisting my gut a little bit up there, as I sit here and listen.

MR. HAGAN: I'd like to respond to that if I might. First of all, CETA is not the be all and end all. It is not all things to all people, and primarily it is not upgrading. We view, as a matter of activity, that the long-run solution to environmental manpower problems lies more with the vocational education system. I think if your efforts were directed toward impacting the state vocational education system so that operator training courses could be offered through adult ed, career ed and voc ed in your local community colleges and high schools, you might be more successful in attempting to get upgrade programs for your operations.

Secondly, your association might consider dealing directly with the New England Wastewater Institute, located in Maine. Mr. Pelloquin and Mr. Baker have long operated a fine institution out there. I don't know whether they've gotten any CETA funding or not, but that's quite an operation.

MR. LOTHROP: Now, we've put on over the last four or five years, through the Association, a number of short courses. The state has taken advantage of some of the New England Wastewater Institute - New England Interstate Water Pollution Control Commission money as far as some of these training courses.

But what we're looking for or what we tried to get going the first of this year was a full-time instructor type of program. You know, we've got other jobs that we're trying to do and to try to keep these courses going as an Association on a part-time level is very difficult. I know the situation is maybe to some degree peculiar to the State of Maine just because of the way the thing is set up.

MR. HAGAN: No, I don't believe it's that peculiar, but I'd like to take off a bit on that, because we could go on all night. I'd like to refer you to Ed Bernard over here.

MR. LOTHROP: I know Ed quite well. His agency certainly wasn't involved with the original grant that we got from MDTA, through MDTA at the beginning of this year. But now the whole thing seems to be, as far as what we're trying to do, just falling apart.

MR. HAGAN: Then I would suggest you tell your Congressman to introduce a resolution to the floor.

MR. BECK: I'd just like to add something if I could. Tom, one of the things that we're doing with our training programs to overcome this upgrade training problem is to require the consultants who are developing the programs to develop curriculum material and also audio visual aid material. Under one of the grants, we purchased a Sony taping system so that all the lectures and all the class presentations could be kept as program learning tools. It might be an offshoot for some of the programs that we're thinking about in the future, but that's a way in part to overcome the upgrading training problem.

MR. HAGAN: Yes, sir?

MR. VASUKI: My name is N.C. Vasuki; I'm with the State of Delaware. I have a question about the lag between training and the need. We've been advised about CAMPS, when that concept came out, MDTA, when that concept came out, a number of other programs, each of which suggested that if you followed the rules, if you followed through on it, you would have enough training slots available so that you trained the people.

My problem has been that it seems to me that there is a lag. Today, we need, let's say, 2,000 trained people. By the time you gear up and go through the application process, getting the money, getting organized, and you actually start training, it'll be a year and a half probably. By that year and a half, either these 2,000 available job slots have been filled or some other new requirement has come in, by the time you finish your training, you may be ending up with a thousand trained people who have no jobs to do. I hope I'm wrong in this and there's some attention given to this phase lag which seems to go through each successive manpower training program.

MR. HAGAN: Well, I think you're quite right. I agree with you. I think we can back up and look at the time lag it takes to develop the manpower needs in response to a particular piece of legislation. In the professional and technical, highly technical areas, it's often as much as five or six years before the needs show up.

But I think one of the important things to remember is that the legislation such as CETA and the Manpower Development and Training Act are responsive to national conditions, conditions that existed, whereby the need for personnel was great in particular areas, such as prompted the Manpower Development and Training Act of '62.

CETA is a grandson of that, through the absorbtion of the OEO and poverty programs. I think that the Congress really showed that this is a national priority, that there are people there in dead-end jobs, people with no employment skills. We, again, as environmental administrators, most of us, excluding me, have a built-in technical bias toward our own programs. We're not trying - we cannot make the Comprehensive Employment and Training Act fit our particular needs across the board. We have to make our needs fit that funding source so that we can go ahead and do a training program.

DR. ALBRIGHT: Bill, I think some of the problem, of course, stems from our lack of sophistication in refinement of projections, too. Now, we know - right now, you are aware of the fact of FIFRA and its amendments. You're aware of the Pesticide Control Act. You know what's coming down the line, but if we sit back and wait until such date as it's implemented and then say we've got to train, we certainly are in trouble.

MR. COAKLEY: Jack Coakley, EPA, Region VII. I'd like to ask Mr. Wright and Mr. Beck, as state agency administrators, did you have adequate staff to begin with that you could afford the luxury of putting so much effort into going after these funds, or did you feel it was worthwhile to the extent that you could defer something else to go after these funds, and if you had it to do over again, do you feel it's worthwhile doing again?

MR. BECK: I can answer it very shortly. That's why I took Charles Oakley from you.

MR. WRIGHT: No, we didn't have the manpower. We did most of it in bars at night and at home. And we knew we had to do it or we were out.

MR. HAGAN: Would you do it again?

MR. WRIGHT: Yes.

MR. HAGAN: I think one of the things we might look at just as a particular example - Commissioner Beck was giving some examples of what he was going to do with

CETA money. Somebody came up with the very bright idea with regard to the Federal Insecticide, Fungicide and Rodenticide Act, as amended in 1972.

Since the United States Department of Agriculture, Department of State Extension Service has a readily available accessible system for training of farmers for increased productivity of food and fiber, would it not be advantageous through CETA funding to hire a man under Title II and put him in each county agent's office to assist the county agent in delivering training programs. That's just an idea to throw out.

DR. ALBRIGHT: As a matter of fact, Bill, the State of Iowa is doing that now, not under CETA funds, but under DOL funds that were given to Title IX of the Older Americans Act, hiring retired farmers, training them and putting them in county agent's offices.

MR. HAGAN: Richard?

A VOICE: Just to implement this problem which has been continuous now for four to five years, the upgrading problem in all areas of environmental control, borrowing on some old military experience, a traveling team. We were not able to get the personnel away from the plants to go to Cincinnati or even to spend more than four or five hours away from their individual functions, because of the nature of so many small installations in the territory.

But we developed a mobile training facility or van, a facility being more acceptable in the grantmanship terminology, and that has been working for two years under EPA funds, two and a half years under Art Baker, which is an adjunct facility to his training institute and is available in the region.

Effective last month, that has now been taken over in its entirety by the New England Regional Commission. Supplementing that, they are now beginning through the Regional Commission with innovative funds, the development of an initial pilot we ran, using the Sacramento Forest in the case of wastewater treatment with itinerant instructors, because we found it essential to reverse the dropout rate that is experienced in normal correspondence courses.

When we initiated Sacramento, historical correspondence courses have a dropout rate of 80 percent, or non-completion rate. I charged my staff with inverting that figure, and we adopted a new idea, and we ended up with a 70 percent completion rate, not quite the objective we went to, but very close.

We've now augmented that through the Commission where itinerant instructors will be made available in the state, not only the classroom work, but for on-the-job training, and this is one approach toward hitting your upgrading problem which we have in every area of pollution control.

MR. WRIGHT: I'd like to make a comment at this point. I note that the basic purpose of this meeting is a National Environmental Manpower Planning Conference. And the way I read that, we're supposed to prepare or to stop and think about what we should plan to do to answer some of the problems that have been reported today. And I'd like to jump on Francis Lostumbo this morning for not really coming out with any proposals or anything that this Conference can do to send something back to Congress.

And I'd like to jump on Fred Bolton for saying we shouldn't look at the pie in the sky problems. We've got unemployment on us right now; we've got to take advantage of that $2.9 billion dollars that's there. I can agree with that point, but if this is a planning conference, and we're going to come out with some answers, we ought to be able to say something - the people in this room ought to be able to come up with some kind of a position to go to Congress to answer these problems, rather than just sit here and chat about them for two, three days.

MR. HAGAN: I'd like to point that up, John. I think it wouldn't be too out of line for me to suggest that possibly just that very thing be done, a statement be sent to possibly Peter Brennan, the Secretary of Labor, and to Russell Train, and to the Congress. I think the people in this room represent a constituency large enough and strong enough to do that and probably be effective with it. I would like to see something like that happen.

MR. WATTS: My name is Tom Watts. I'm from the Vermont Department of Education, and I'd like to follow on that statement a little bit, if I could. All through the Conference, to this point, we've heard the need for upgrade training. If I understand the situation correctly, it's practically impossible to provide that with CETA funds. If there's a state or prime sponsor that's doing that, I'd like to know who they are.

If that's the case, as far as CETA is concerned, that we are not able to get upgrading funds, I would propose that the other agencies who have funds for training usually have mortgages against that money long before you come along looking for upgrade money. If EPA is going to promote legislation that will create situations where upgrade training is necessary, I propose that that kind of money be put in those pieces of legislation and don't go around begging for other people's money. I think that's probably going to be like chasing your tail for the next five years. Some of us have already got that tail in our mouth by the way.

MR. HAGAN: Well, I agree. We've just been shut off - we had a very good pipeline from DOL over the past five years, and we don't have that money anymore. Our operating budget is as low as yours. EPA is going to disengage or is disengaging from wholesale funding or large scale funding of training programs.

MR. WRIGHT: That's what OMB is telling you to do. That's not what EPA is saying they want to do.

MR. HAGAN: I don't think it's so much OMB. Let's look at it from management's standpoint, from a Federal agency, seeing what other Federal agencies can do and are doing. The system is there. It's up to us in Washington to help manage it, to help massage it, and to be able to help people crash the state vocational education system and the CETA planning cycle.

I don't think that's too extraordinary a job, and we'll reduce the Federal expenditure which everybody is saying is inflationary.

MR. WRIGHT: I thought EPA was getting out of the training for MS sanitary engineers and MS people in terms of solid waste and the other environmental programs. You are getting out of that because OMB told you to. I heard several times, we're going to try to hold on to that. Well, don't go into OMB with a "try to hold" on that. Go into OMB with, if you don't go our way, we're going to shut off the construction grants to your own town, and you ain't gonna have a job when you get back there. If you want to do something, you've got to have some moxie, you know. You can't be always - DOL's got everything, and I can't do anything - I'm like the kid with my tail between my legs, asking all the time.

MR. HAGAN: Looking at it from a national standpoint, some $500 million is put out through the Federal and State vocational education systems. Now, admittedly, it's often difficult to crash that planning cycle. I think we have an obligation to do it. I don't understand why the funds that are allocated under one piece of legislation - I mean, it's beyond my comprehension - that the funds allocated for a specific purpose cannot be utilized to match the purposes of two or three agencies. This, to me, is pretty sound management, and I think it's in line with the policy of beating inflation.

The Federal expenditure is one of our leading indicators of inflation or one of the causes of our inflationary spiral.

I think then that we have - it's incumbent upon us to insist that some of these funds not be expended. But I think, by the same token, we have an obligation to manage what's there. If we can manage it to our own ends, to the ends of the environmental manpower activities, that's fine. I think we should do that.

A VOICE: You just did what I think is happening to the air pollution professional training activity - that environmental training doesn't have to be done by EPA; it can be done through CETA. And when people hear environmental training, they wipe out and throw in the same basket all the sewage treatment plant operators, the garbage collectors, and the sanitary engineers and public health engineers and program administrators that CETA will not train.

We've got all the program people, who are professional people. There's nothing in CETA to train those people.

MR. HAGAN: I didn't say that CETA wouldn't train them. I didn't say that CETA would train them, that EPA doesn't have to. EPA's not going to abdicate its responsibility --

VOICE: Those were not the words that were in your statement. You said we don't need environmental training.

MR. HAGAN: I didn't say we don't need environmental training at all --

VOICE: In EPA.

MR. HAGAN: I didn't say we don't need it in EPA either. I said there are sources elsewhere that can be coupled with the --

VOICE: Where? Where, where, where? Where are you going to train the air pollution professionals I'm talking about? Where else?

MR. HAGAN: Well, number one, Research Triangle Park, with EPA resources applied to it.

Number two, our university system.

Number three, our community college system.

Number four, our own states.

VOICE: Have you tried to train 6,000 United States air pollution professionals in the community college system? Have you costed that out?

MR. HAGAN: No.

VOICE: You'd better.

MR. HAGAN: Does that mean that EPA is going to have to go into a full scale funding operation, to train 6,000 air pollution control technicians at the professional level?

VOICE: Yes.

MR. HAGAN: I think I have been saved by the bell.

UTILIZATION OF VOCATIONAL AND ADULT EDUCATION FUNDS

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UTILIZATION OF VOCATIONAL AND ADULT EDUCATON FUNDS

DAROLD E. ALBRIGHT, Panel Moderator

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DR. ALBRIGHT: To start off the panel this morning, we'll have an address from C. Kent Bennion, who is Director of Occupational and Adult Education, U. S. Office of Education, Department of Health, Education and Welfare, Region IX, San Francisco. Mr. Bennion.

MR. BENNION: Thank you and good morning to all of you. I want to welcome those who have come here to Arizona. This is part of our region and we always are glad to have people come and visit in Region IX. We have several distinctions in Region IX. In our region we have the largest state in population--California--and we have the smallest territory--American Samoa--in population. So we go from the largest to the smallest.

I was able to attend yesterday afternoon and catch a little bit of a feel for some of the thoughts that some of you were expressing at that time; and I think as a result of that, those of us who are here today talking about vocational education can offer some assistance. We've done some in the past, and I think we can continue to do this.

I think one of the comments that has been made--it was made yesterday and it has been voiced certainly in the Congress--is that in some way we've got to try to pull some of our programs and activities together so that we're not duplicating each other. It's still my fear, and I raise it now, that we're establishing a dual educational preparation system in this country by providing the kind of funding that goes to CETA through the Department of Labor, and setting up programs specifically for those so-called disadvantaged under that definition of disadvantaged. When we operated under MDTA, we were able to pull some of these things together. In our region, hopefully, even though the funds flow directly to a general-purpose government prime sponsor, a city or a county, they are in turn utilizing part of those funds for continuing some education and training.

As we talk about vocational education and adult education, let me give you a brief of these programs to start out. Then the rest of the panel are going to give you some specific examples of things that they've been doing and are now doing which relate to certain of the EPA activities.

First of all, an orientation of the U. S. Office of Education as part of HEW. Dr. William Pierce is the Deputy Commissioner for the Bureau of Occupational and Adult Education (BOAE), and would like to have been here to participate in your Conference; but activities are moving rapidly on a number of things that we need to keep in touch with on the Hill. As you know, the President still has not signed our appropriation for this year.

In the BOAE organization, we have decentralized much of our operation to the regional offices and to the states. This has been going on in the state operation, of course, for many years--vocational education being one of the oldest federally financed education programs. The Adult Education Act is a program not included on the handout. It started with the OEO program back in the middle sixties when the federal government felt there was a need to provide some money to help provide basic education for adults. We know that there are many people who have limited skills in writing, communicating and in computation. Because of this need, the federal government has been funding this activity for several years at approximately $60 million. The amount that is in the appropriation bill now is up to $67 million for this fiscal year. That is divided by a formula allocation to the state departments of education or the state agency responsible for adult education within the state. The purpose of this program is to enable these adults to improve their basic skills, to complete the secondary level of education, and help them so that they can become more employable. This program is operated on the state plan system. After the state plan is approved, the funds are given to the state agency, which usually passes them through to local educational agencies - community colleges or high schools operating adult schools.

One of the difficulties in the adult basic education program they have encountered is recruiting. They offer many programs providing English as a second language. There are many people who come to this country, immigrants--in our area, the Bay Area, many who are of oriental extraction--come there and need English as a second language. We usually have no problem recruiting people for classes in English as a second language. The ones we do have a problem with are those who have lived here and who don't really feel that they need any more education; they are reluctant to come forward.

The kind of thing that you might work out in your programs is to provide basic education classes where you have people who are employed now and who feel the need for basic education. Separate programs and classes can be established--many times right on your premises or on some location close to where your people are working. The state or the local school district may be able to organize classes in basic education to work around your schedule. We've seen this happen in companies and in governmental agencies in several locations. The federal funds are not large, but we are able to hire teachers; and, in many cases, the states themselves add some matching money. The law requires that they match ten percent, but most of them spend much more than that. There is a special emphasis now in the amendments to the law which was passed this last June, which requires states to give an emphasis to those persons who have limited English-speaking ability.

The other point that I need to emphasize is that education is a state function. From the federal level, we do not dictate to states. The Congress, in some cases, has placed some priorities and limitations on use of the funds, but the state is the institution that has the prime responsibility for education. Each state, therefore, has some variances. Even within the region that I work with here--among California, Nevada, Arizona and Hawaii--there are big differences. Hawaii, for example, does not have local districts. It is just one big state education system. And so, I have to emphasize that whatever state you are located in, you are going to have to get acquainted with the procedures there in working out training.

One thing I think you will find important in nearly all states is that most of our education at the high-school level and below is supported by local property tax dollars. School districts have to start planning their budgets right at this time of year for next year. Usually, these budgets have to be firmed up by about April or May because they have to advise staff whether they will be hired for the next year. If you are going to be planning with them to try to implement some of the kinds of training you need, I would suggest you start working on it now.

Now, let's look for just a minute at the vocational education program. The little hand-out I gave you is trying to explain a rather complicated federal piece of legislation. The Federal Act is divided into several parts, as it indicates there, and each one of these parts gives a separate appropriation of money. Nearly all of these funds are allocated by formula to State Boards for Vocational Education. Only about 17 million are retained by the U. S. Commissioner of Education for allocation on what we call discretionary grants. These discretionary grants are for research and demonstration exemplary programs. About half of that goes for research, for which the announcements came out just a month-and-a-half ago with a closing date the end of November of this year.

The exemplary programs' Part D funds are allocated usually on a three-year project cycle, so we only have new programs starting about every three years in different states.

I have tried to indicate in each one of these parts the purpose for those funds. Part B is the Basic Grant; nationally there is $409 million, and if the appropriation bill goes through the way it is now, it will be up to about $420 million for Part B. That's the bulk of the funds in this legislation. The others are $20 million or less.

The states receive the money on the basis of a state plan. The state plan is not in great detail, but it does indicate the purposes for which they are going to use the money and the procedures they are going to use to allocate the funds within the state.

Most states allocate nearly all the funds to local educational agencies, such as high-school districts, community colleges, and special area vocational schools. Many states now have organized or established what they call area vocational schools to supplement the vocational education provided in the high schools. In California, these area vocational schools are called regional occupation centers and regional occupation programs. In Minnesota, they may have different titles. That is why I am emphasizing again that you have got to look at each state individually.

The law provides that one of the requirements that states use in allocating the funds is that they are used for programs that have manpower needs. That is one of the four basic criteria. Local school districts, in applying for these funds, have to identify that they are going to use them for establishing and maintaining programs that will meet manpower needs. This identifying manpower needs has been a real problem in most states. The law indicated that education could go to the Department of Labor on a different basis than the way education is able to use it in establishing training programs.

Most of the state employment services collect information on covered employment by standard industrial classification, so they can tell you within the state how many people are employed in the manufacturing industry or in timber and mining; but they are unable to tell you how many of those who are employed in that industry are welders, or secretaries, or how many of them are truck drivers. So we have to go back and either make some special studies, or go to the census we get every ten years. People tend to give the occupation that sounds the best, and so we've found in some studies that is not too accurate. By taking the census data, we can come up with some general areas of needs. I think you people also are able to make estimates for us as to the training needs within the state and within the local area. We need to identify these, not so much by DOT because we don't usually set up training programs based just on DOT, but by a broader classification. There are just too many DOT numbers.

For example, we have training programs we are operating now throughout the country that deal with the environmental protection area. A little over a year ago we had a total of nearly 2,000 people, according to the reports the states sent us, who were being trained in the environmental protection area. Other specific training is taking place in environmental control, environmental technology, air pollution technology, and water and wastewater technology. These are programs that are now going; they have enrollments in them. I think that, with your help in pinpointing the actual needs in the environmental area, this will spur on the educators to develop needed programs. Remember, you can't just drop in one week and say we need a program and start in another week. The planning has to go on in advance.

Now, one of the points I think I should mention to you is that these federal funds are only a part of the total expenditures that are going out for vocational education at this time. On the average, throughout the country they amount to about one-fifth to one-sixth, probably closer to one-sixth of the total expenditures. In individual states, varying amounts from one-half to maybe one-eighth will come from federal funds, so that the bulk of the monies are coming from state and local funds. This again makes it important that you are able to make your needs known to the state and local educators. I would emphasize that you contact the director of vocational education in a community college or an area vocational school, and get onto his advisory committee for programs that deal in this area so you can provide input to this development.

Mention was made yesterday of the need for upgrading training in many of your activities. I think this is certainly true for all of us. We need this; this session today, to some extent, is a kind of upgrading training for all of us.

There is a part of the vocational program that we call cooperative education, which we're trying to encourage the states and local districts to expand and improve on, and in which they are providing related courses for people who are already employed or getting them employed, so they're working either part-time of full-time; and at the same time they're taking related courses in their area of work. If you have a number of people who are already employed, and you feel they need some upgrading, certainly the schools are a resource where you can go to get help. Now, how you get this upgrading arranged will vary by states.

In the State of California, for example, with the kind of financial system they have there, a community college or an adult school can usually add an additional course if you have 15 or more people to enroll. This will not be true in some other states where they do not provide this kind of financial support, so the emphasis again is to find out how this is organized in your state, and then work with that system.

I would emphasize that the cooperative programs are the ones that we're stressing and encouraging the states to establish. This, I think, works in very well with your program because many times you have small numbers of people who need this training in scattered locations. You don't get enough students together in one particular place for a regular class, so we have to utilize your facilities for much of the training.

We have seen some programs that have been operating very well, and I think it was mentioned yesterday, where there are mobile training units. This again is a new type of activity that some states have developed. South Dakota, for example, in the State Department of Education, has established and provided mobile training units for some parts of the state. This is the type of thing for which these federal funds can be utilized, and I think they are being utilized in this case.

Well, I think that I'm going to stop at that point and let the other panel members talk; and then, hopefully, we'll have a chance to react a bit to some of your individual questions. But let me just emphasize here at the end--remember that the whole area of adult and continuing education is a growing field for many reasons. One of the reasons for this is we've just got a lot more people who are adults now than we have had before. Our population is getting older in some respects, as well as having a bulge in the younger area. The whole area of continuing education and retraining is an important one. Many of our schools are just catching the vision of this; but, with your help and encouragement and working with them, they can do a lot more.

But plan ahead with them and get acquainted with those people who are at the local level, at the community college or high-school district or area vocational school, regional occupational center, and explain to them the kinds of needs as you see them; provide data to them as to the numbers of people and kinds of training; serve on their advisory committees; and I feel sure that you'll be able to find a lot of the training that you need will be accomplished through this means.

DR. ALBRIGHT: Thank you Kent. As you listen to the speakers, I would hope that you bear in mind variations or combinations of programs that may serve you.

Kent talked about the many variations and variances. Now we will hear from Roy Gillaspy, who is Director of Emissions Control, Industrial Sciences Department, Colorado State University in Fort Collins. Dr. Roy Gillaspy.

DR. GILLASPY: Thank you. I appreciate the opportunity to be here to wave our banner as to what we are doing in the field of training for emission control.

Now, we at Colorado State University are only dealing with one segment of emissions, and that is motor vehicle emission control systems. We are developing an educational instructional materials packet that we will be able to give to the teachers in the educational systems or to the EPA regions, or to any interested agency that would like to conduct a training program. They will be able to take these training materials and conduct their own training program right in house at their leisure or whatever.

We are going to develop a complete emission control series that will go from start to finish on the different motor vehicle emission control systems. We have developed these materials in the behavioral objective form.

We feel that the legislation and laws that we now have really will not be effective without a good training program, and so we have chosen the educational field as the delivery system that we are going to use to get the information across to the people. What I am going to show you is a series of different devices that we are using to get this information across.

Now, we are using the conceptual principle method, and some of the materials that we have will deal strictly with a concept. I will show you a series of slides depicting the approach we are using to teach different emission control systems.

In this particular system that I am showing you, the Exhaust Gas Recirculation System (better known as the EGR), we have a character that we call VEC, which stands for Vehicle Emission Control. He is showing us the exhaust gas recirculation valve mixing exhaust gas with the air fuel mixture. Here we are explaining the content of air. And here we are showing that NO_x, which the EGR system is developed to control, doesn't really create a problem until the engine gets above 2500° temperature. And this slide is showing some of the different components of the EGR system.

All of the material we have developed is artistically illustrated. We have tried to depict it as well as possible, and also to put VEC into the act where people might be able to associate with him or to use him as a crutch to understand the message.

And, of course, this slide shows California--no offense Mr. Bennion, but you Californians have to be different. We have to show you what a transducer is, which is used only in the State of California. And again, this slide shows the system using the transducer.

We have another control series that we are developing which is the Thermostatic Air Control System. Here we are showing the different types of controls. This slide shows a thermostatic type. This slide shows the air valve type, and most of the people who we will be training will be mechanics and have some knowledge of the automobile to start with, so we have made these assumptions and we are trying to develop these materials for these people.

This slide shows part of our testing series. We cover maintenance and testing in all of our slide series.

Now, these materials are not new; nothing I have shown is new or secret. We have borrowed most of our material from the manufacturers themselves--with their permission.

These slides will give you an idea as to the type of program we are trying to develop. We will have approximately 244 slides depicting five different emission control systems, as well as a series of overhead transparencies. We have developed three video tapes; one explains the characteristics of gasoline and how gasoline is involved with the emissions, and the control of these emissions. We have done the same thing with chemistry. We try, in 28 minutes, to give a three-semester-hour course in chemistry so that you will understand the different modifications the manufacturers have made in the automobile engine to control emissions.

We also have a video tape on instrumentation showing how the different analyzers function and how they are to be used properly.

We are also developing a series of hands-on experimental-type experiences for the students to use in the laboratory. After they have taught about a concept or a system, they can go to the laboratory and actually put this information to use. We are also developing evaluation instruments to go along with all of our instructional material.

When I say "we," that is really what I mean, because we are utilizing 23 vocational auto mechanics instructors in 21 different states to help evaluate our material. They are being fed the material as we develop it, and then they teach their emission classes with this material and send back to us their comments, changes, and evaluation.

We hope, when we are finished in May (and we hope we are finished in May), that we will have a full instructional packet for the motor vehicle emission control systems to be used by anyone to teach or better understand motor vehicle emission control systems.

We have not done anything with catalytic converters, spark control systems, and the thermal reactors because they are so new that we were not able to pick up all of the information from these manufacturers. Because they are new, many changes will be made causing our slides to become outdated.

I would like to conclude by saying that we will be happy to work with anyone on developing emission materials, and we will be glad to share what we have with any and all, because we think we have developed a good teaching packet for motor vehicle emission control systems.

DR. ALBRIGHT. Thank you, Roy. Obviously, you have developed some fine material. I encourage you to talk with members of the panel should they say something of interest to you, and to contact them even when they get back home. For heavens sake, we don't need to duplicate efforts that are already underway or being done in an excellent manner, such as this.

Our next speaker is Dr. Robert Crabtree, who is Supervisor of Adult Education, School of Vocational Technical Education, Idaho State University, in Pocatello.

Dr. Crabtree did his undergraduate work at Utah State, and graduate work at Brigham Young University.

He has owned and operated a chain of automotive tune-up shops in Utah and Idaho.

For the past five years, he has worked with MDTA wastewater and water programs, OJT, EPA programs for upgrade; and, at this time, will share some of the work that he's doing in Pocatello.

DR. CRABTREE: That's right. Most of the time vocational education has been referred to as a group of boys gathered around an old car. It has become a sophisticated aspect of the total training of career development for each and every one of our students.

I think when Prosser developed his 13 theorems of vocational education, he indicated that it was vocational education's responsibility to educate all the children of all the people. I don't think that's changed too much, but there have certainly been very odd and underlying effects of vocational education.

I'd like to share with you a letter that I received, and I certainly don't anticipate being an Art Vondrick, who, I am going to have to say, is the George Burns of Phoenix, and just did a fantastic job.

But I'd like to share with you some of my particular feelings when it comes to vocational education; and also, before I get too far along here, I'd like to, of course, because I'm just a little bit mercenary.

Now, I need your help, ladies and gentlemen; I really need your help. Could I have a show of hands by those of you who are in the audience today that have a bachelor's degree or above? Could I see a show of hands? Now, I'm going to ask you a question. How many of your children are attending a vocational school? I don't want to see a show of hands; I don't want to see a show of hands. I don't want to be disillusioned.

I'll tell you what some of the disillusionment comes from. This would be in the form of this letter. It says:

"Dear Bob,

"No, I'm not very good in school. This is my second year in the seventh grade, and I'm bigger and taller than the other kids. They like me all right, though even if I don't have much to say in the classroom, because outside I can tell them how to do a lot of things, and they tag me around and that's where it makes up for what goes on in school.

"I don't know why the teachers don't like me. They never have very much. It seems like you don't know anything unless you can name the book it comes from. I've got a lot of books in my room, at home, books like Popular Science Mechanics, the Encyclopedia, and the Sears and the Wards Catalogues, but I don't very often just sit down and read through them like they make us do in school. I use my books when I want to find something, like whenever Mom buys anything second hand, I look it up in the Sears or Wards first and tell her if she's getting stung or not. I can use the index in a hurry.

"In school, though, we've got to learn whatever is in the book, and I just can't memorize that stuff. Last year, I stayed after school every night for two weeks trying to learn the names of the presidents. Of course, I knew some of them like Washington, Jefferson and Lincoln; but there must have been 30 altogether, and I never did get them straight. I'm not really sorry, though, because the kids who did learn the presidents had to turn right around and learn all the vice presidents.

"I'm taking the seventh grade over, but our teacher this year isn't so interested in the names of the presidents. She's trying to learn us all the names of the great American inventors. I guess I can't remember names in history.

"Anyway, this year I've been trying to learn about trucks, 'cause my uncle owns a truck. Fact is, he owns three, and he says I can drive one when I'm 16. I already know the horsepower and the number of forward and backward speeds of 26 American trucks, some of them diesel, and I can spot each make a long way off.

"It's funny how a diesel works. I started to tell my teacher about it last Wednesday in Science Class, when the pump we were using to make a vacuum in a bell jar got hot. But she said she didn't see what the diesel engine had to do with our experiment on air pressure, so I just kept still.

"The kids seemed interested, though. I took four of them around to my uncle's garage after school, and we saw the mechanic, Gus, tear down a big diesel truck. Boy, does he know his stuff.

"I'm not very good in geography either. They call it economic geography this year. We've been studying the imports and exports of Chile all week, but I couldn't tell you what they are. Maybe the reason is I missed school yesterday, because my uncle took me in his big truck-trailer downstate about 200 miles, and brought almost 10 tons of stock to the Chicago market.

"He told me where we were going, and I had to figure out the highways to take and also the mileage. He didn't do anything but drive and turn where I told him to. Boy, was that fun. I sat with a map in my lap and told him to turn south or southeast or some other direction.

"We made seven stops and drove over 500 miles roundtrip. I'm figuring now what his oil cost and also the wear and tear on the truck. He calls it depreciation. So we'll know how much we made.

"I even write out the bills and send letters to the farmers about what their pigs and their beef cattle brought at the stockyards. I only made three mistakes in 17 letters, last time, my aunt said. She's been through high school and reads them over.

"I wish I could write school themes that way. The last one I had to write was on what the daffodil thinks of spring, but I just couldn't get going.

"I don't do very well in school in arithmetic either. It seems like I just can't keep my mind on the problems. We had one the other day like this. If a 57 foot telephone pole falls across Smith Highway so that seven and three-sixteenths extends from one side, and four feet and nine-seventeenths the other way, how wide is the highway? That seemed to me like an awful silly way to get the width of a highway. I didn't even try to answer it, because it didn't say whether it had fallen straight across or not.

"Even in shop, I don't get very good grades. All of us kids made a broom holder and bookends this term, and mine were sloppy. I just couldn't get into it. Mom doesn't use a broom anymore with her new vacuum cleaner, and all our books are in a bookcase with glass doors.

"Anyway, I wanted to make an endgate for my uncle's trailer, but the shop teacher said that meant using metal and wood, and I'd have to learn how to work with wood first. I didn't see why, but I kept still, and I made a tie rack at school and an endgate after school at my uncle's garage. He said I saved us ten bucks.

"Civics is hard for me, too. I've been staying after school trying to learn the Articles of Confederation for almost a week, because the teacher said we couldn't be a good citizen unless we did. I really tried because I want to be a good citizen. I did hate to stay after school, though, because a bunch of us boys from the south end of town have been cleaning up the old lot across from Tailor's Machine Shop to make a playground out of it for the little kids from the Methodist Home. I made the Jungle Jim from old pipe, and the guys made me Grand Mogul to keep the playground going. We raised enough money collecting scrap this month to build a wire fence clear around the lot.

"Dad says I can quit school when I'm 15, and I'm sort of anxious to because there are a lot of things I want to learn how to do. And, as my uncle says, I'm not getting any younger.

"Uncle Bob, what can you do to help me?"

I think this is indicative of - and I'm not doing an about-face as you, I'm sure, heard from the introduction. Certainly, I've spent some time obtaining an education, but if I were to give this presentation any kind of a title at all, I would say, "No One Calls Me Doctor." The reason for this being that I don't feel I can do an effective job in vocational education if I walk into a training group, and it's Dr. Crabtree. I'm interested that they say "Bob." I want the rapport with them, and I think it's imperative that vocational educators feel this way.

Now, to utilize the funds of vocational education, as our topic is directed toward, I'm probably going to put myself way out in left field with the majority of the group. I certainly do not plan to be the Devil's Advocate; but, ladies and gentlemen, I think the time has come for us to get off our horse and get going. And the horse that I refer to is the soft money that all of us in vocational education have had for so long. Frankly, I think we've had too damned much, too long, too easy.

Now, I'm sure that probably alienates two-thirds of the group, but I feel very strong toward this. I feel that it's the responsibility of vocational education to go after that which they need, that which they want, that which they can defend, and that which we can provide.

Vocational education is no longer a dirty word. We're not a second grade education offering. We're first rate. The CETA funds that are going to be available are, for the most part, going to be able to be directed toward vocational education--if you and you and you and you have enough intestinal fortitude to go out and get it. I don't know how you are going to get them, I don't have any magic elixir that is going to tell you that by a mighty swoop of the hand you are going to be able to obtain all the vocational money that you need.

Let me tell you that I think that it's imperative that all of you become involved--involved to the degree that you're going to accept challenge, you're going to accept the responsibility that goes with an elected office.

I think that you need to be responsible on school boards. I think you need to be responsible in all civic activities; and that if you are responsible, people are going to be responsive.

We have a unique situation within the state; and, by the way, I look out over this great group and I'm wondering how I'd react if this size a group were to form at one single place in the State of Idaho. I would think that it was nothing short of a lynch mob. We do not have that large a population; subsequently, we do not command the attention when it comes to dollars. But, also because of the small population, we probably don't have some of the problems. Some of the problems that I'm sure are chronic to all of us when it comes to cooperation between various agencies are probably due to lack of cooperation.

I had breakfast this morning with a man who I admire very much; and, you know, we solved all of the problems of the whole conference in one felled swoop--he spilled his milk on me, so that stopped that.

One good thing that I told him was that it pays to be large in stature. When I talk, they listen.

But also I feel I have only this to pass on to you when it comes to vocational usage and utilization of funds: If you want them, you're going to have to go get them. If you want them badly enough, you're going to find a way. I have no magic. You have no magic. But there is no stumbling block that I know of that is so large that you can't get around it.

My suggestion: Let's join hands and be educators, whether it be academic, whether it be vocational, whether it be OJT, or whatever it be, ladies and gentlemen; we need each other. I need you; you need me.

Paraphrasing again one of the old laments, I think of the railroad brakeman. He said, "I'm not allowed to pull the throttle or even ring the bell; but let that damned train jump the track, and see who catches hell."

Your responsibility and mine is the same. If it's going to jump the track, see who catches hell.

DR. ALBRIGHT: Thank you, Bob. I think you raise a good point in that money isn't going to come easy. Every agency is interested in needs, and particularly in results. It's going to take a lot of hard work and a lot of cooperation to get the job done.

Next we'll hear from David McCullough who is Adult Coordinator, Vocational Technical Division, Minnesota State Department of Education.

MR. McCULLOUGH: I want to thank all the people from Arizona for inviting me here to the Sun Valley today. It made me feel right at home when I looked out the window this morning, seeing all you natives scraping that ice off your windshields. It was 46° in Duluth yesterday. I'm going back where it's warm.

Yesterday I heard things I didn't want to hear. People were pretty militant. I hope that you've had a good night's sleep and you'll be a little more receptive today.

I'm an employee of the Vocational Technical Division of the Minnesota State Department of Education, have been for 25 years as a vocational administrator.

Yesterday, you said we've identified a lot of problems here, but no way to resolve them. Well, I'm not going to go into a lot of detail of the administrative set-up in Minnesota, but you'll find vocational technical operations are different in every state. Everybody operates different, and to say that the way we do it in Minnesota is the right way--we're different than most states.

But I think the approach we have - we are on the right track, and it's serving the need and doing the job in our state, so far. One thing about vocational technical education--if it isn't serving the need, we have an advisory committee; and if anyone from the industry says that this is not doing the job, we'll change it immediately. We're not plumbed into anything permanent.

Financing, which I think you're interested in, hundred percent. No money from manpower; it's all voc ed funds. Now, in Minnesota, we're on a good ratio, about one federal dollar to eight state dollars that we put into the program, so most of this is state dollars, and I'm sure that most of your states are in the same situation--you're not going to get any more federal dollars; you're not going to get CETA money for upgrading and retraining. You might as well forget it and look for another source, and that's your state legislature; and I'm sure, if we're going to increase programs and help more people, we've got to go to legislatures; we've got to justify them, and that's the way we operate.

I have a line on the budget. I meet with the Governor and his staff every two years, and say, "Here are my programs, here's what they're going to cost." And when I've spent it, I'm all done. There's no getting it from anywhere else. So, I always ask for a lot more because I know they are going to cut it; and then you plan from there.

So, anything new that goes into a program better be planned ahead of time. You've got to be thinking ahead all the time, so we have a five-year plan. I'm sure you all know we're on a management-by-objectives system--this is the whole total picture.

Now, we have in Minnesota about 675 municipal water systems and 487 sewage plants. I am the vocational administrator. Don't ask me anything about sewage plants. I know it goes in one end and it comes out the other end and goes into the Mississippi. I know it's that way because I read in the paper all the time about the millions of gallons of raw sewage that are dumped in there. So that's where it goes. It's pretty clean up our way - the Mississippi, too. It's when it gets down South where it gets pretty bad. We get rid of it and send it on south.

But we have an intermarriage between vocational education and the Minnesota State Department of Health. The Minnesota State Department of Health runs the water programs, the certification of water plant operators. The Pollution Control Agency has the wastewater plant operators. That's the way it is.

The Health Department had been in the water thing for many years before EPA ever came along; the same way with pollution control and our wastewater program. Prior to 1969, the state agencies were upgrading sewage plant operators around the state at certain of our area vocational technical schools, and then found that they weren't getting out to the outlying places of the state.

Now, we have in Minnesota 53 secondary vocational centers and 33 area vocational technical schools, so I've got a pretty good delivery system where I can cover the state, statewide, and this is why I'm in the act. We've got an advisory committee set up and we set up the programs in all these places.

Now, the man from California related to the itinerant teacher program. We call them field instructors in Minnesota because the men got a little indignant over being called itinerant teachers, because Webster's Dictionary says "itinerant" is a "hobo" and they thought it was a little degrading to be called a hobo instructor. So we changed them to field instructors, and that gives them a little more dignity on the job. It's not any more money, just a little more dignity.

I have 18 of those. I've been criticized on a state level because the State Department of Education should be administrative in nature. Well, we're providing service, and we're allowed to do that by law in Minnesota - to provide a service to municipalities and other service organizations to those school districts that would not be able to provide the service themselves. And that's how I run it. Eighteen instructors on a state staff. Two of them are working as water and wastewater (the so-called itinerant) instructors--one of them in wastewater, one in water treatment. It's worked out real fine.

This is a basic, very basic, education. The water treatment program consists of an advisory committee. I do the administrating, and we sit down together with the Department of Health, the advisory committee, and work very closely. They lend all their expertise, the technical advice, to these programs. I just lend the delivery system, the administrative, and I got the money. That helps. That's the way they run.

Now, the people who are in these programs - and I don't know if its different in your states or not - but we've found that this guy who's running a sewage plant out here in a small community is probably the same guy who's running the water systems plant, too. They're one and the same people. He flushes out the hydrants in the town. He's probably on the local fire department and makes all those calls, too. He also, probably when it comes to meter reading time, reads the water meters around town. If you've got a break in a main, he fixes that, too. He works on the water main. He just does everything in that town, and he probably gets four or five hundred dollars a month to do it.

And you come out and say, "Hey, Buster, you gotta go to school, get a certificate." That's hard. Man, you're not going to get that guy to school. But we've been getting them there, but you've got to take it to them. You've got to take it to those men and make it just as easy for them as you can. You've got to realize that the majority of those men probably never had an eighth-grade education.

So we started out, and it was very frustrating. Basic math. We'd say, convert the fraction to decimals. They're lost; they're all done. Well, we spent seven weeks in the 20-week program (50-hour program) in basic mathematics, and it's very basic. Frustrating. I couldn't live in the class with those guys; it was driving me crazy.

But we spent seven weeks with them to get them around to where we could get them inside the meat of this thing; and after the 20 weeks were done, we told them to come down and get their certification exams.

From then on, we run the specialized courses to upgrade them in laboratory work and so forth. We had an idea of going into a mobile laboratory, but we didn't. We have this elaborate vocational school system with some fine laboratories in them where we're teaching industrial chemicals, so we're using those labs. No use duplicating the money and effort. They're not used much at night anyhow.

I was glad when the gentleman related the fact that vocational technical education for adults is coming to the forehand. We feel it's got to in Minnesota. We have a declining enrollment in our colleges - our community colleges - and we have increased enrollment in our vocational schools, but it's not going to be there forever; so unless we fill those buildings full of adults and adult programs, brother, we're going to have a lot of storage for sugar beets. And I think other states are in just as bad a shape as we are. It should be an increasing program.

But the thing I want to impress on you is the close workingship we have with other agencies. Now, this doesn't happen--I know another agency that I deal with in Minnesota--this doesn't happen all the time. Everybody's trying--state services and federal services--everybody's trying to build their own empires. I've been accused of it myself - everybody's very selfish about that. We are not; primarily, we're only there to serve people, not to serve an individual, and this is what happens.

Well, this hasn't happened in Minnesota, and probably many of you know Bill Sexauer. He's here from Minnesota. Bill spends more time with field men or the sewage instructors than I do. He spends a lot of time with them out on the road.

Same way with the Department of Health. A fellow named Gary Engberg works with him, spends the time on the road with this person. I don't. I just see that he comes in for the administrative things once a week, teaches four nights a week. They do - two and a half hours - with the related training in vocational schools. If there isn't a vocational school nearby, we'll go into a high school where we can get something for nothing, you know, a building, heat, and light.

Now, the success is the one-on-one relationship. This man spends time with each student; he gets to know every man in his class--exactly what his sewage system is, what his problems are - local problems and administrative. He knows everything about that guy because he spends time with him all day long. This is not an easy job. The guy works all day, he works at night, 10:00 p.m. every night. All day long, every night. Travel, work, night. It's hard to find competent men to take this kind of a job.

Young men--usually married, with families--they're gone from home all the time. A lot of them don't like this. Our pay is fairly good. We pay really well, in fact. I can hire these people rather cheaply because they don't get much out in the industry, so I bring them in at a much better salary, and I get them out of the communities and into the cities, which nobody wants to live in either - and I don't blame them.

They've been living out in this small town, walking to work every day, and then you throw them into this metropolitan rush-rush where they have to have two cars, and the smell of the smoke, and they can't even see 'til noon every day.

But this is the picture of what we're doing in Minnesota. We're running full secondary programs, too, in wastewater. We have one in St. Cloud - entry level. When they come out of there, those people go to work in solid waste plants, sewage plants. We've got several of these programs.

I can relate to you those few that we're doing at the entry level. There's a water disposal technician course at one VTI we have; we have one on environmental technology; we have one air and water analysis, and water and waste product treatment technician.

Minnesota is the land of 10,000 lakes and a lot of forest products, a lot of natural resource, high-level technicians in water and fish and game, soil conservation; and we're putting a lot of two-year technicians with those people as helpers. These are all people with college degrees who are wasting time in menial tasks, so we're putting a lot of technicians in the Department of Natural Resources as aids to the biologists and the conservationists, so this program is going very well at the entry level.

In vocational education, somebody related yesterday about overtraining. This will never happen because the minute we supply the market, the program is terminated. We have a very close evaluation of our post-secondary system. Any time a student doesn't get a job, we know about it. If he's not employed, we find out what the class is and we don't run it any more. It's as simple as that. We quit. We can spend that money elsewhere. But we don't overtrain because our local higher-education coordinating committee won't allow it--a very, very effective evaluation system of our post-secondary course over at the University of Minnesota forever and ever. They don't care whether anybody gets a job or not when they get out of there, but they've sure got their eye on vocational education.

DR. ALBRIGHT: Next, we're going to hear from a person who graduated from Oregon State University. Obviously he likes the state; he's stayed there ever since his graduation in Oregon. In 1969, he was employed as a specialist in the Department of Education, Career Education for the Occupational Areas of Natural Resources and Environmental Careers.

Howard Brock is a Specialist in Conservation and Forest Products, Oregon State Department of Education, Salem, Oregon.

MR. BROCK: When you're last on the program--I've already changed what I'm going to say six times, trying to figure out something different. So, I'd kinda like to tell you a little bit about what we're doing in Oregon in career education. Just to give you an idea of the picture, we're beginning in education from Grade 1; and in kindergarten, where we have them, with what we call a career awareness impact. We're trying to get the young people to start thinking about careers. This being a word in a connotation (that our friend said previously) that a career is a career, whether you're going after professional, technical or whatever occupational level it may be, that it always has dignity.

In the grade levels 7 through 10, we have what we call career exploration. Hopefully, they'll learn a little bit more about themselves, about their aptitudes, their interests, and something about a job that they may wish to pursue.

Many schools are incorporating work-experience-type programs, to where even kids in Grades 7, 8, 9, and 10 may visit workers on the job and talk to them about their work. When we get into Grades 11 and 12, we have what we call a preparatory program, or what some refer to as vocational.

In Oregon, what we call this is the cluster concept. Some of you may be familiar with it. What we have attempted to do is to determine within the state the major related jobs in each one of the major occupational areas. What we have defined covers about 80 percent of all the jobs in Oregon. Instead of training a young person to be very specialized, we train them on a broad base of skills that cuts across the board in the major occupational areas.

For example, in the construction industry, students learn skills in electrical wiring, plumbing, carpentry, and in masonry that are common types of skills across the board to each of these occupational areas. We don't try to specialize as a carpenter or a mason.

Specialization is the role of our community college. As the individual finds an area in which he wishes to specialize, he can either pick it up through a trade school, apprenticeship program, or community college (depending on the particular career he has chosen), or go on to an institution of higher learning. Our community college system is fairly well geographically distributed around the state, which allows all segments of the Oregon society to have a community college available to them.

We're finding that many people in our community college system in the upper age bracket are coming back to school. This is typical around the United States.

We have 13 community colleges. The programs, as mandated by law, will offer what we call lower-division, transfer-type courses, which is the two-year academic program. Then there's vocational/technical and adult. Vocational/technical is our preparatory program area.

Adult has two segments. The one I will refer to this morning is in what we call occupational supplementary. This is what we've been referring to here at this session as the upgrading-type programs. This is where people are employed, and you're trying to give them new skills or upgrade them in their particular jobs in new techniques.

The other adult basic ed that we have is what we call community education. This is avocationally oriented, along with adult basic-ed-type GEDs where adults are getting their high-school diploma.

Occupational supplementary is one area that probably we need to do more in. In many cases it's difficult to offer these types of courses and then get people to actually come in to them. We have many successes, and we have some failures.

The one thing in Oregon that I think is very interesting (when they raised their hands here as to how many youngsters are getting into vocational/technical) - history has shown in the community college effort that when you start a system such as we have here, enrollments are very heavily vocational/technical.

The next thing you know, the community college will be 90 percent academic and 10 percent vocational/technical. Oregon has maintained (though we're very new in community colleges - since about 1964) a 50-50 basis on vocational/technical and academic programs. Young people are coming into the programs realizing that "technical" has gained a desirable image where it isn't putting them into a lesser-type occupational career. I think this is pretty good. I'm sure that in a few years you're going to see a lot more hands going up that say vocational/technical programs are pretty good to your youngsters.

I think today vocational/technical programs are where the jobs are. If you look at some of the professional careers (except in some specialty areas), there is a lack of job opportunities. In Oregon, for example, the School of Forestry has the largest enrollment they've had in their history--over a thousand young people enrolled. You look at the employment opportunities for this particular area (as they also mentioned in Minnesota) - I tell you, it's dog eat dog. The jobs are just not there.

Vocational/technical programs in Oregon (I think it's pretty true by the federal standards in other states) must give to students a reasonable opportunity to gain employment, that program won't be there. It's just that simple. This is why young people are choosing careers in these types of programs.

In the area of environmental careers, we have attempted in Oregon to define what are the environmental careers. We began originally with a list of job classifications developed about 1970 by a community college group that met in Denver.

I made some great transparencies and I was going to show them to you. Yesterday's experience showed that transparencies are too difficult to read. Basically, the developed list classified the jobs in the following: environmental planning technology, disease prevention technology, pollution prevention and control technology, and resource conservation technology. It covered quite a broad base of job cluster-type careers.

We used this in our advisory committee as a base. The advisory committee has attempted to define and project the types of emerging environmental careers that may be needed in the whole field of environmental control and environmental services for Oregon.

I think they have done a pretty good job. Through their recommendations, we have made a balance of programs so that the young people are finding jobs; we're not overproliferated, and we're trying to stay on top of the various kinds of existing and emerging careers.

In Oregon we have a system in which you can implement any kind of preparatory program as long as there is job opportunity and need. Federal money is only paying for the excess cost of vocational/technical programs through Part B monies. We have categorical grants, of course, which are the specialized funds for program areas. In total financing of our community colleges, the state puts in about 40 percent, and about two percent for federal, and then the rest is picked up by local education districts or community college districts.

I was interested to hear California received $36 million from the federal government. This must be nice, because we get about $4 million in our basic grant. Of course, they have many more people to serve. Oregon's monies are shared equally between the community colleges and the secondary vocational programs.

Like I said, I have a lot of material here, but I'm not going to try to bore you with too many things that have already been said.

The community college could be the source to provide the need in environmental training in either preparatory or upgrading. This is one of the services where the community college can really do a good job. What many people don't realize is that community colleges can bring the upgrading to the field to provide this training. You don't have to bring people into community college buildings for instruction; we find the right guy to do the right job. He or she may not be a person on the instructional staff of that community college; instructors can be an expert from the field who's brought in to provide the expertise essential in areas of learning.

In Oregon, it's pretty handy. Since the community college districts are located geographically, we can provide the essential upgrading services that are needed. Upgrading is a very important training need in the field of environmental careers. We find few new careers emerging and are not implementing many new programs. We find that our existing programs (that we already have by adding specialized courses) is adequate. For example, in civil engineering you could add an hydrology course, or in the agricultural programs put in a pesticide-handling course, in chemical technology you might put another option.

We're finding that by adding a course to the existing curriculums, we can give a person a broad-based training background, making them more employable. For the people already in the field and employed, we need to be able to reach them better than what we're doing, and provide more diversity in our training emphasis in our occupational upgrading.

In Oregon, we have three community colleges with specialized environmental technology programs. Specialty areas include water and wastewater technology. We have one with a four-year institution which is not really part of our system, but with whom we work very closely. It has four-year programs in several environmental career and other specialty areas.

We have (as mentioned in Minnesota) natural resources as one of our major training career areas. Forestry and related resource careers are a major area for job training. We're doing a very satisfactory job here. Probably more so than what the job demand is at present.

We have put on upgrading courses in auto emissions, and are attempting to provide the essential upgrading to meet the new standards that will be law in the Portland metropolitan area. We are trying to provide effective and adequate training in the field of all environmental technology. We appreciate working with anyone who will let us know of their needs. Appropriate action will be taken to provide the training to meet the needs of the various segments of our society.

DR. ALBRIGHT: Thank you, Howard. Thank you, members of the panel. We now have scheduled in some time for questions. Do you have any questions? We'll be glad to try to answer them. Yes, sir?

MR. QUINN: William Quinn, from State Community College for Occupational Education, Denver.

First of all, I want to commend Oregon on their cluster system. I've studied it quite a bit and am very impressed.

Two questions. One for Mr. Gillaspy. He mentioned the trouble getting information from industry as far as the upgrading needs for emissions. What are we doing about it, as far as getting this? If you'll hold, I have one more question for somebody else.

Mr. McCullough, you said that you're not receiving any manpower money. Title I of the CETA act has set aside five percent money for vocational education. Are you receiving any of that?

MR. McCULLOUGH: It goes to disadvantaged, minorities and disadvantaged, most all of our CETA money goes into those programs. All of it does, in fact.

DR. GILLASPY: Speaking to the comment about obtaining information from the emission control manufacturers, the reason they were reluctant to give us information on the catalytic converter and the airnoid and some of the newer things that they're working on, is because they have not passed their 50,000-mile test limitations that EPA has put on them. So it really wasn't that they were withholding the information, they were just wanting to get some of the bugs clarified before they did turn the information loose.

UTILIZATION OF STATE PROGRAM GRANTS

Chester J. Shura, Moderator
Manpower Development Branch - EPA Region V

Jean J. Schueneman
Control Programs Development Division - EPA

Edward F. Richards
Office of Water Program Operations - EPA

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Office of State and Interstate Programs - EPA

UTILIZATION OF STATE PROGRAM GRANTS

CHESTER J. SHURA, Panel Moderator

- - -

MR. SHURA: I had a small part in developing the program that you're being exposed to here today and I think from my own personal observation there's a lot to be learned by everyone. Sometimes it's refreshing even for those people who think they know the bag of tricks that are available to implementing manpower programs. Sometime it is still constructive to go over the laundry list of the tools that are available and look at the extent to which you've made them work for you and, again, look at the experiences of others and see that there are many, many faceted ways of handling a program, managing a program - that it's an open-ended process, in constant flux, constant change, requiring constant innovative procedures.

There are some things, general things that I listened to yesterday, and I think a good way to put it is that things are constantly changing. I recall last year, when Francis Mayo (my boss) was sitting with our divisional heads, and we were talking about fiscal year '75 work plans and several division heads were at the table. One said, "Francis, tell me how many positions and money I'm going to get so I can tell my people their jobs are secure."

I remember Mr. Mayo looking at them and saying, "You tell me what you are doing that is important and then we will look at what everyone wants - other proposals that people say are important. I will weigh these inputs and look at what I've got in aggregate resources and tell you what you are going to get. We'll worry about where the people fit afterwards."

I think, to a great extent, that's the sign of the time. We're being asked to get more of a bang out of a buck; we're being held accountable for what we do. The only way we're going to do that is somehow have some sort of plan or approach that we want to take, a system of prioritizing, of looking at what resources available from various sources working with and through others to get a job done.

We are no islands to ourselves. We are going to have to learn how to interrelate, integrate, get along and sometimes concede that we often have to compromise between our objectives, your objectives, if you've got three or four parties with different motives putting in monies. How can we, all of us, get a piece of production out of this activity?

Another thing that I think is very central here - it deals with decentralization. The big thrust, I think, in decentralization is establishing a capability at the State and local levels. We've got to work at establishing that. The Governor of the state, the sovereign of the state, is responsible for accomplishing environmental objectives within the state. It seems to me whether we deal with State EPA, whether we deal with higher education, etc. - somehow at the state level there's got to be a mechanism for letting each other know what their plans and priorities are, how to work together to impact existing work plans to get the job done effectively.

That communication gap is very significant - so State environmental lead agencies have got to go back and work at those communication gaps. You've got to relay your needs and your availabilities to your delivery mechanisms (state offices of education/vocational education). State environmental lead agencies are going to have to somehow convey their needs of priorities and get these to the other interested agencies and help work with them to meet those needs.

Most of the agenda here has been of general information to many people. The topic this particular panel is dealing with is more restricted to monies that are available within EPA from several funding sources - from the Clean Air Act, Clean Water Act, Sections 105 and 106, respectively, and some solid waste grant monies.

Too many people within our agency are a little remiss. They think of manpower as an adjunct, an add-on; somehow they don't realize that the function of management is to provide on-going funds for upgrading your own people and being responsible for manpower development and planning and training implications of your legislative mandates and achieving environmental goals.

The manpower function is often shortchanged in the process. We're building many waste treatment plants and finding that half of our secondary plants are not meeting secondary removal requirements.

Today, we have three panelists. Two of them are from the national level and one from the regional level. We're going to start from the top down.

The first person to appear on the program will be Jean Schueneman who is the Chief of the Control Program Development Division, National Environmental Research Center, Research Triangle Park, North Carolina.

He was introduced to you yesterday and his background capsulized so I won't reiterate those details.

Without further ado, Jean Schueneman.

MR. SCHUENEMAN: I'm supposed to discuss the utilization of State and local air pollution control program grants in the conduct of the training for various kinds of people at various levels. Actually, the title of the talk in the printed agenda is wrong. It should include local air pollution control agencies. They spend about half of the money that's spent in the air pollution control field. There are about 150 local agencies and only about 53 state agencies. However, there are about 12 states which have no local programs at all. The state does all of the air pollution control work in those states. In some states, the program grants that go to cities or to counties or multicounty regional districts are passed through state agencies with terms and conditions as to what the cities will accomplish with the monies available and the state and the local people develop agreements as to who will do what in the air pollution control field.

First, let's take a brief look at what funding levels have been in the air pollution control agency opperations field and how these compare to estimates of needed funds. We can take a look at this slide (Figure 1). You can see the history of State and local air pollution control program funds, including Federal grant funds. In 1974 Federal program grant funds are about 40 percent and State and local funds are about 60 percent of the total. There has been a very spectacular growth with the funding levels doubling since 1940 and increasing substantially since 1965.

There are several estimates available of the funds actually needed by control agencies (Figure 1). The line labeled "Model" was developed from estimates of the manpower needed to accomplish various tasks in air pollution control agencies, and then these were converted into dollars. The graph indicates that we're some $50 million short nationally of funds available to State and local agencies. The other line is labeled "SIP Estimate." These are estimates of funds needed, developed by the State air pollution control agencies, in preparing their SIP; their SIP being a State Implementation Plan to achieve national ambient air quality standards. It has a broken line at one place since in 1973 new estimates were made. The dashed line goes straight up. That increment was due to new program elements that evolved since the initial estimates of resources needed. Those new programs are indirect source reviews to determine whether shopping centers, sports stadia, et al, will cause air quality standards to be exceeded; no significant deterioration of activities; the maintenance of air quality standards; and the development of transportation control plans to reduce air pollution. Growth has been substantial, but we're still far from meeting the needs.

The next chart (Figure 2) indicates what's happened to State and local air pollution control agency manpower, in terms of numbers of equivalent full-time people on board. Again, we see very substantial growth since 1965. There has been a doubling since 1970. The manpower model yields estimates that are rather high, perhaps because

Figure 1. Comparison of actual and needed State and local air pollution control program manpower.

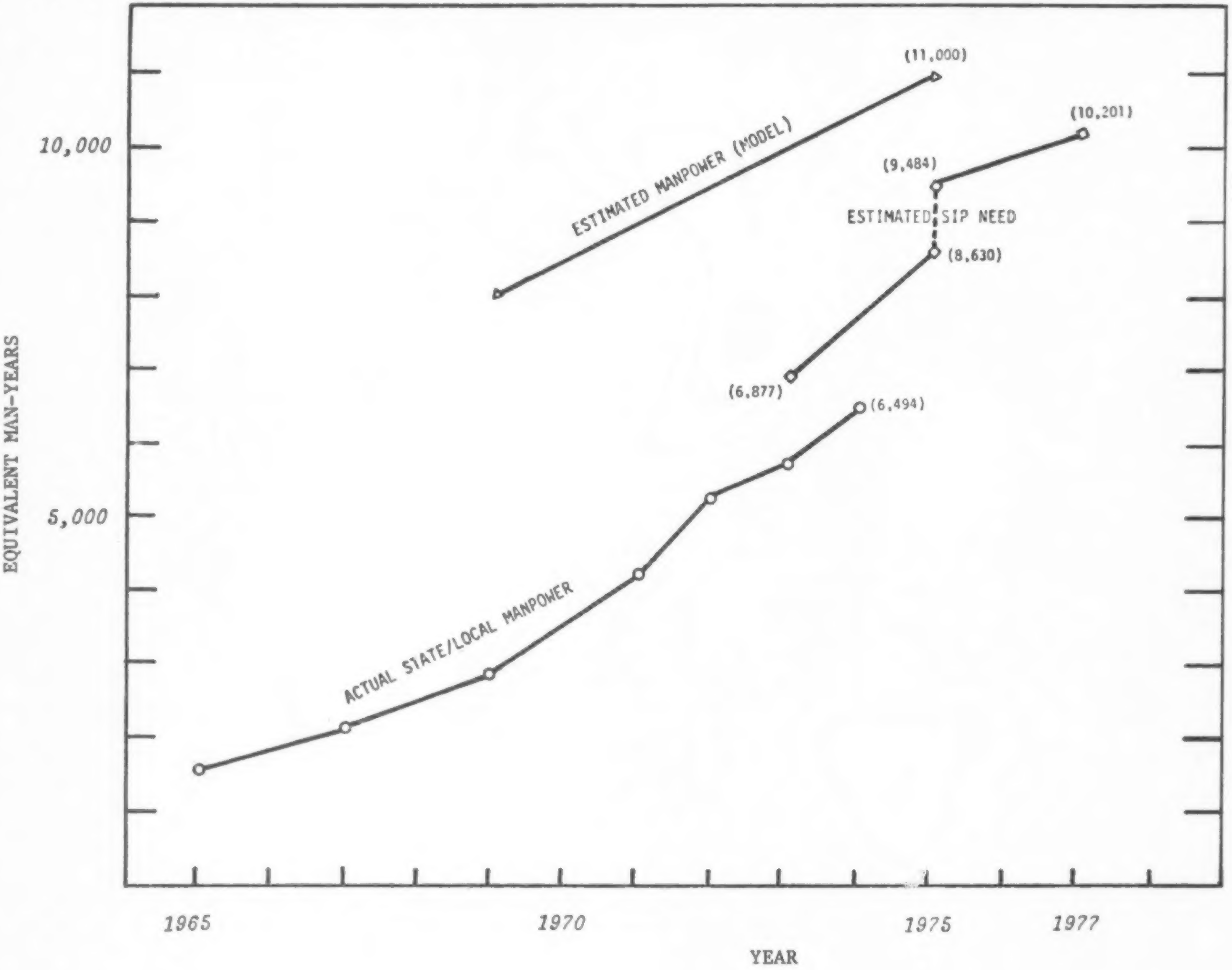
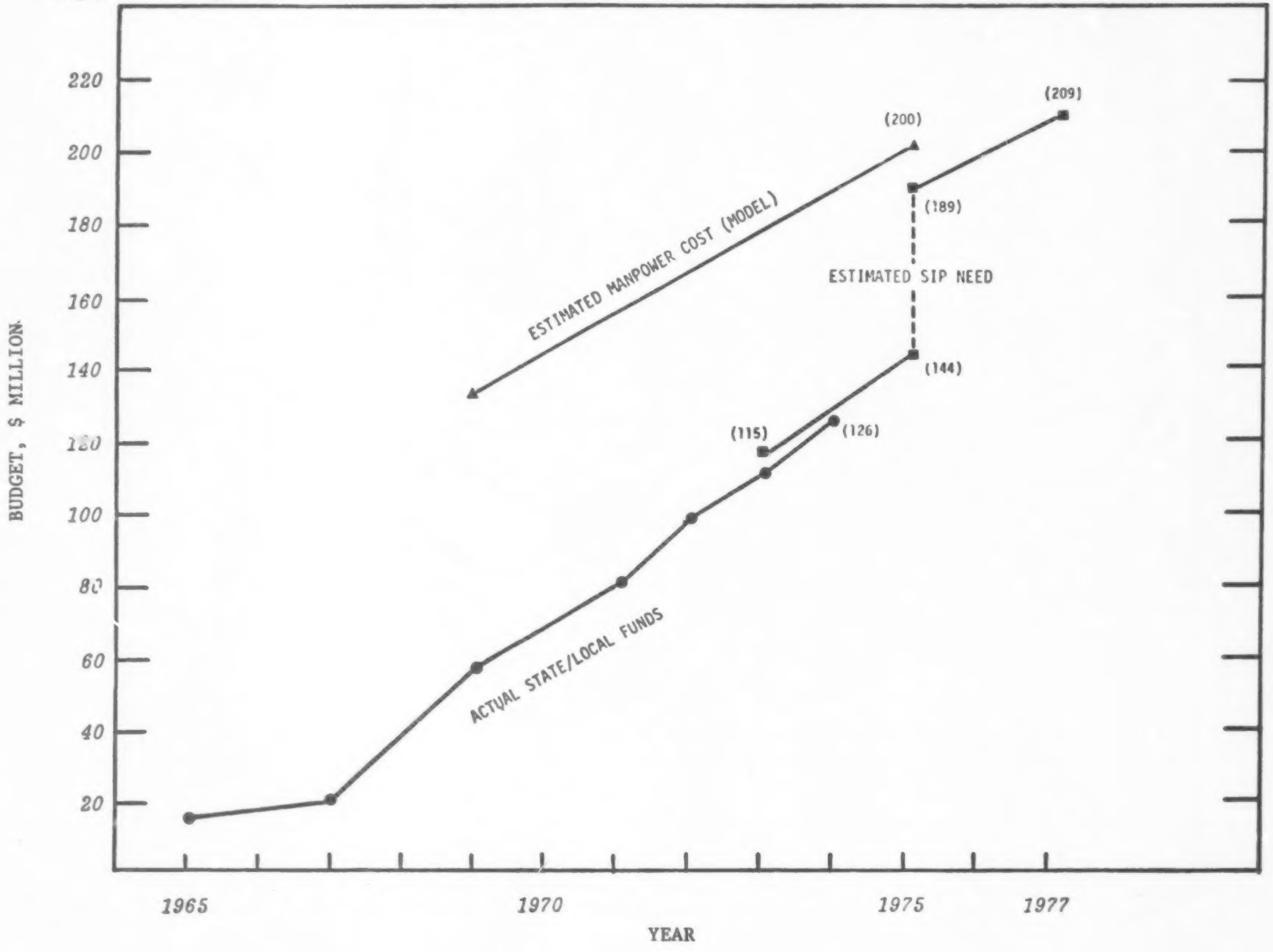


Figure 2. Comparison of actual and needed State and local air pollution control program funds.



it's based on a rather idealistic air pollution control program, where the other estimates, labeled "SIP Estimates," were tempered somewhat by the control agencies' views of their probable ability to obtain the necessary manpower. There may have been concern that the Federal Government would hassle the states to get the estimated needed so underestimation may have prevailed. But we are somewhere in the vicinity of 3,000 men short of the need. Even though we have about 70 percent of the total national staffing needed, in 40 percent of the states, we have less than 60 percent of the needed manpower. We have a large number of states that are grossly understaffed and unable to meet their various program needs.

The Federal Government's management of control program grants in the early days, starting back in 1964, was directed primarily toward getting new control programs established in urban centers and in states, and to strengthen those existing programs that were already there. We've changed our emphasis over the last year or two. We are now emphasizing the development of programs, the content of programs, and the accomplishment of specific tasks, particularly those related to carrying out the State Implementation Plan. This year we've emphasized the development of specific outputs in the various State and local agency programs. We've used an incentive type of approach. We have encouraged State and local agencies to get into new programs such as indirect source review, enforcement of national new source performance standards and hazardous emission standards, the development of transportation control plans and their enforcement, et cetera. These program goals and outputs are developed in negotiation sessions between EPA's regional office staff and the various State and local agencies.

We have not pushed very hard at the Federal level for the development of training activities in State and local programs. It's been considered that training was best done at the Federal level. State and local agencies didn't know how to conduct training and had not been doing so, and to divert resources from other State and local agency operations into training was not appropriate. The Federal Government does conduct short-term training courses in North Carolina and in the field for professionals and subprofessionals employed by governmental agencies, industry, universities, et cetera. Also, training was available in universities, partly supported by grants from the Federal Government.

The states may use their program grant funds - and many have - for paying tuition to go to night school courses, to go to special training courses conducted by commercial enterprises or to pay travel, per diem and support for people who go to any appropriate training course.

Further, EPA has made available fellowships for a full-time year of graduate study. These are now directed primarily toward control agency employees. The Federal Government provides $6,500 in stipend plus tuition, fees and books for attendance at full-time graduate training, or part-time graduate training with monies adjusted appropriately. The state can use Federal program grant funds and their own funds to augment the support of people who are engaged in full-time training programs, if $6,500 isn't enough to support the trainee.

We find that a few states conduct some limited training on their own, particularly in the states with larger numbers of State and local air pollution control agency personnel. Included, for instance, among them would be Ohio, Pennsylvania, New York and Texas. These states, we believe, from a rather incomplete survey, have conducted about 200 man-weeks of training during the past year, not including a large amount of training on visible emission observation. About 28 states do conduct visible emission training.

A rough estimate would be that about $100,000 was spent by State agencies on the conduct of training of their people, not counting the time or the salary equivalent of the persons being trained. This works out to something around two-tenths of one percent of the total funds available to State agencies indicating the low priority that the states place on conducting training for their own personnel. We find more attention being given to training now, as the state programs mature. They're beginning to think more about training and finding funds and manpower to do it.

The local air pollution control agencies conducted somewhere around 400 man-weeks of training, not including that associated with visible emission training.

We think that the kinds of training that might be conducted by all states fall into several categories. They would include: visible emission observation; general orientation courses in air pollution; presentation of packaged and self-instructional courses that are availble from the Federal government or elsewhere; and on-the-job training. The State agencies can foster motor vehicle mechanic training and motor vehicle emission inspection training by other organizations. Almost all states can do some, if not a great deal, of those kinds of training. But they cannot do other kinds of training economically and efficiently. They can do it; there's no question about that, given the money. But we think it would be uneconomical and inefficient for them to conduct the more complex and specialized kinds of courses.

There are, however, about 10 states in the country where upwards of 300 people are employed by the collective State and local agencies within that state. In those 10 largest states, rather extensive air pollution control agency personnel training activities might be undertaken including those that I just mentioned that all states might conduct. They also may conduct specialized training for professional people in air pollution measurements, source inspection, source control and other kinds of air resource management activities. They would probably use standardized materials available from others, hopefully the Federal Government. We doubt that any states will want to conduct the rather costly laboratory training, or training in highly specialized fields in which there are only a very few people employed, such as in the fields of meteorology and statistical analysis of data. Typically there are only one to possibly three persons of such categories in any one state. The economy of a state training program of that kind is not very good.

The states can use their program grant funds for these kinds of training activities. We will be encouraging the larger states to do considerable training and the lesser states to do some limited training on their own. They can use program grant funds for those purposes, either by maintaining trainers on the staff of the State or the local agency or for contracting with existing educational institutions. If the state air pollution control agency wants vehicle emission inspectors trained, they can take some of their grant money and hand it over to an institution equipped to train people in that field or to hire a commercial organization to conduct training. EPA does have some control over programs and activities the states would engage in. EPA will generally agree with any kind of training that a state agency wants to do, using program grant funds, so long as it isn't needlessly repetitious or grossly inefficient utilization of the state's limited resources. That determination, of course, gets to be judgmental and sometimes the EPA doesn't agree with a State and local agency. But men of good faith and in good bargaining situations can usually work it out.

EPA will try to support state and local air pollution control agency training activities through the provision of self-instructional courses, through the provision of training packages and instructor's manuals, and various other materials. Frank King, who is here, knows all about those training materials and if anyone would like to find out further details on that subject, he's available. He is in charge of EPA's air pollution training activities, from top to bottom, and cover to cover. Thank you.

MR. SHURA: Thank you, Jean. The next person on the program is Edward Richards, who is the Acting Chief of State Program Branch, Water Planning Division, Office of Water Planning and Standards, EPA, Washington, D.C.

MR. RICHARDS: I'm going to talk for a few minutes about the state controlled agency grant in water, particularly from the national perspective and how these grants relate to state training. My remarks are addressed primarily to the state people in the audience, although they will have some relationship to particularly educational institutions. After I talk for a few minutes, Jim Marth, from our regional office in

Chicago, will be going into more detail on the actual negotiation of these grants between the regional offices and the state, and I hope that together we'll set the stage for some discussion afterwards.

I'd like to begin by describing in general terms how and for what purposes we made grants to state agencies. As many of you know, under Section 106 of the Act, grants are authorized by the state agencies for a wide range of activities, such as management of municipal facilities programs, permitting, monitoring, enforcement, et cetera.

These grants are negotiated between the EPA regional office and the state agencies on an annual basis. The state submits its proposed program in April, and in its submission, it makes problem assessments; it describes its strategy in dealing with the problems in each program area; and it commits itself to producing specific outputs in the course of the subsequent year. These outputs would be such things as number of permits to be issued, number of compliance monitoring inspections and that sort of thing.

Now, in considering the states' applications, the regional office adapts our national program guidance to the specific situation in that state. For example, in our national guidance, for a given year, we stress a particular program activity or activities. For example, last year issuance of permits was a major priority and within the total grant for the state, when they specify in this guidance the percentage to go, for example, to permitting activities. However, the region has considerable discretion to change the priorities depending on, again, the situation in the particular state, and these priorities do change from year to year. For example, next year, I would expect compliance monitoring and enforcement will have a higher priority than last year.

The point I'm trying to make here is that each of the program areas, training, enforcement, monitoring, et cetera, must compete for the funds available. They compete within the state program for state dollars and also for the EPA dollars. Now, in this competition, during the first two years under the Act, training received a total of two percent of the total funding, that's state funds and EPA grant funds to the states. That means that both EPA and the states have afforded a rather low priority to training relative to other programs.

In FY'74, $2.3 million out of a total of $116 million was spent on training, and FY'75, the comparable figures are $2.5 million out of a total of $125 million. Virtually all of these funds were used for operator training. This relatively low priority given to training, in my opinion, does not stem from the fact that people don't appreciate the need for training. Everyone talks about training needs. We might say if this talk about training isn't translated into programs that perhaps people are paying lip service to training, but I think that the basic problem here is, the Act mandates certain new activities, and those program priorities, especially in the last two years - permitting and municipal grants - have received such stress, particularly in our funding guidance, that there just hasn't been sufficient money left over for training.

I should point out that in the next few years, EPA hopes the states will be taking on increasing responsibilities, particularly in municipal facilities management, compliance monitoring, enforcement, and the start of a 9-point source control program. We expect that Section 106 appropriations will continue to rise, although that's by no means certain, and the trend is for state appropriations to continue to rise, the other programs in demand are going to create a very competitive atmosphere for the available funds. Now, having said this and perhaps somewhat discouraged you in the process, let me point out how I think that you can more effectively compete for the funds that are available.

The first point I'd like to make is that EPA's emphasis will lean on encouraging state self-sufficiency in training. Thus, our policy will be to respond possibly to well thought out state training programs.

Secondly, and perhaps most importantly, the states themselves are providing about two-thirds of the funds in state programs, with EPA supplying about a third nationally. So, we'll be looking at the willingness of states to commit their own funds for training at the time we look at their grant application.

As I said earlier, the process of determining the funding of each program element within the program is a competitive process, and I think for training to achieve a higher priority implies that those people concerned with training must do a more convincing job of selling your program, both within the state agency and with regard to the EPA regional office.

If you can convince your own agencies and your own legislatures to devote funds for training, and if you devise effective strategies for training within your state, I think you'll find a positive attitude on the part of EPA, in increasing funding for this activity.

The need for increased training, as I said before, is apparent. With increased state emphasis on training, expressed in terms of more state funding and well thought out programs, EPA is ready to cooperate by considering funding increases for training in our own grants.

In devising your state program, I think as a minimum, the program has to assess the training needs for the agency and for the state agencies concerned as a whole. Determine priorities and indicate how training fits into your other program activities. For example, ONM and compliance monitoring, how it supports those program areas.

If you're able to do this, I think that there will be a response from EPA in terms of increasing the funding that will be available for training.

MR. SHURA: Thank you, Ed. The next speaker will be Jim Marth, who is the Director of the Office of State and Interstate Programs, Region V, EPA, in Chicago, where I also work. I've had the privilege of working with him for the past five years beginning with the Federal Water Pollution Control Administration, and now with EPA. Jim has been very instrumental in our region in our ability to impact state program grants.

Jim's really at home here in Arizona. I remember when I approached him about being on this panel. He was very eager to come, and I found out why. Not just because of the sun, but this is where he got his education at Phoenix College and Arizona State University, and he began his career in government right here in Phoenix with the Arizona State Employment Service. He worked with the State Employment Security Commission, as a Senior Program Advisor and Auditor and then joined the Department of Interior in 1963 as a Financial Analyst in Washington.

Then he served seven years in Denver as an Operational Auditor where he specialized in the evaluation of program effectiveness, from canal and power plant O&M programs, to aerial surveillance of wild life refuges and land usage policies.

During the past four years, he's been with our agency in Chicago where he's become the Director of our Office of State Programs. He and his staff are responsible for assisting the State and interstate agencies in developing and self-evaluating effective air and water control and solid waste managment programs.

MR. MARTH: Thank you very much, Chet, and it certainly is a pleasure to be here with you today. I must say that this is one of the more effective and efficiently put together conferences that I think I've ever had the pleasure to attend or participate in, and the people who made this possible and the arrangements I think are certainly to be commended for the excellent way in which this has been carried out to this point.

I think it was Bob Crabtree, who said that he would probably alienate two-thirds of the people here. At least he left a third for me to, I guess alienate or something, with the exception of perhaps a few of us who've got broad shoulders. I'd like to make a few general comments before I talk about program planning and one of the techniques that we've tried to convince the State water and air Environmental Protection Agency administrators of what program elements are most important. One of my feelings is that progress without people just ain't progress.

Once upon a time, things used to be tough down here in Phoenix. It was really difficult to get a job. The unemployment rate was pretty high and I come back here today and find that things are just about the way I left them; just about the way they were when I first came to Arizona. A Bachelor's degree didn't buy anything more than a cup of coffee, if you had a dime, and a Master's degree might help you to get a job pumping gas for Standard Stations if they liked the way you parted your hair. I remember applying for a job with Standard Stations, Incorporated, and they had something like 140 applicants for three openings. Most of the fellows either had Bachelor's or Master's degrees and they ranged all the way from accounting to the fine arts, and from philosophy to history, and you name it, they were there.

Well, I landed one of those three positions and went into training for two weeks in this training center. The supervisor of the northern area, to whom I was to be assigned came to me one day and said, "Jim, I've been watching your progress, and you are doing a fantastic job. I don't think anyone is selling more products and demonstrating the type of courtesy that we would like to see extended to the people that come to our stations, and I'm very pleased with your progress." The day before the course ended, the training manager came to me and said, "Jim, I'm afraid we're going to have to let you go." I was kind of dumbfounded, and I said, "Why?" He said, "I'm afraid you just can't pack front wheel bearing fast enough," and he said, "Furthermore, I saw you miss two grease points in a car and that could be disasterous."

So, there was a message there. My training was just not for the type of job wanted done. Perhaps, if they had selected someone who had the type of disciplinary background that could be attentive to the things that needed to be attended to, that person would have been much more successful than I was.

I had some other very interesting experiences here in Phoenix which proved to be very frustrating. One of the first positions that I landed back in 1956 or late '55 was as a trainee on a three-year training program with one of the nation's largest insurance companies, as a life underwriter. For those of you who aren't familiar with the life insurance business, a life underwriter comes out and analyzes your needs and tries to develop a program for you. He's called an underwriter.

In any event, I was with this firm for about six months and they had this training program where they would go out and watch you make your canned sales pitch and try to analyze it afterwards and tell you where you could beef it up or something like that. I also found out, and they shared with me, their national statistics, that for every 200 calls or contacts you make, you might expect to line up appointments with 40 people. Of those 40 people you might succeed in making 10 presentations. Of those 10 presentations, you would be highly successful indeed if you sold, say, 1.3 or 1.5 packages or plans out of that 10.

I found this to be very negative impact on my type of personality, although I was ahead of the game, and the planned compensation program that they had was most generous for those days, in comparison to what salary levels were here in Arizona. In fact, I took a $200 a month decrease to go with the State Employment Service as an Employment Service Interviewer I, the entry professional level. But I had to get out of the life insurance business because I couldn't stomach the negativism; contacting so many people and experiencing so much failure.

So, I went from there to the State Employment Service and I happened to be in an office in northern Arizona where we had some unemployment. We had some factories and we had other industry that had opportunities for people, but we didn't have the trained work force. So, I said to the manager one day, "Do you mind if I go out and contact some of these companies and see if we can't develop some programs to utilize the skills and talents that are available in our community?"

He said, "Absolutely not. That's not our job to go out and find jobs for people. We work with the people that come to us and the employers that come to us, and we have this Dictionary of Occupational Titles. If we have a man who comes in and he's been classified as a 9-14.03, or whatever it is, construction industry laborer, and we have a job order that comes in that's classified according to that, then they just match up. We have a placement."

Well, I found out that I was spending about 25 percent of my time collecting statistics on how many veterans I had seen, how many of those veterans were female, how many of those veterans were a member of a minority group, how many minority group members we interviewed, how many were professional, sales or clerical, or skilled, semiskilled or unskilled. By the time I got done, I was too tired, and I had no time available to find jobs for people, let alone even contact prospective employers to develop training programs. So, we found ourselves spinning our wheels and doing the usual bureaucratic thing.

Well, this was a menopausal type cycle in my life that I went through, known as frustration and I was determined after that that there must be a better way to earn a living; where you can do something in the government. Instead of leaving government and despairing, I went on from there into other positions in the Employment Security Commission here and then eventually to work with the Federal Government.

I don't have much time today for people who tell me, "I don't know how to get it done," and they refuse to identify and look at what can be done.

I say that progress can be made. I say that some progress is being made, but there's a lot more that can be done, and you people are the people who are going to do it. If you don't do it, we're all going to be in trouble. This group controls the destiny of environmental protection, at least during the next decade, if not the next two decades.

The most important thing I think that needs to happen in us as individuals is a cognizance of what can be done. A positive approach is the only way, in my mind, that our manpower development programs are going to succeed on a timely basis, to be sure the job will get done. There's no doubt in my mind about that, but will it be done in a timely, efficient and performance effective mode. In other words, is it going to take up a gillion dollars to do what we might have been able to do with a few million? I think that we need to look at this and look at the opportunities to utilize the resources that we have. I don't think we're doing that now.

It's very refreshing to hear successful renditions of accomplishments from people like John Wright and Chris Beck yesterday. I must disagree with the gentleman from California that we didn't hear any messages that meant something yesterday. I think we did hear some messages, but were we tuned in? Were we on the right frequency? Are we ready to hear someone who did get something done, especially in a state where I think the odds are really against you, and that's New Mexico. At least they used to be because that was my neighbor when I was here in Arizona.

I'd like to come back here next year, perhaps not here - maybe it'll be Anchorage, Alaska - and ask how many of you can now match John's successful story or are starting to reach toward needed staffing authorizations that you need, at the authorization level, that Chris is accomplishing in Connecticut.

I asked Ernie Bennett yesterday, "Ernie, do you remember when we started out in 1970 how large your staff was?" He said, "Yeah, it was me, and that was about half time." Most of the time he was collecting statistics, and he was supposed to be looking at all the compliance and monitoring reports that were coming in monthly and, you know, I think he was supposed to sweep his office out each night before he left for home.

Now, the thing is changed some. I think he told me that he had five or six people that he works with. Plus he has key people in the universities now who do have an interest, and in vocational education facilities, and I see resources. I see resources identified and I see programs that can be accomplished. Perhaps it's because we started so late that we find some frustration in not being able to move fast enough now, but I think we need to concentrate on what can be done.

There are three major areas of deficiency in our mode of operation that in these times of economic disadvantage and energy deficit impact, that could substantially impede any meaningful progress at the national as well as at the local level in carrying out our Federal and state statutorily mandated goals to achieve an environment in which man can live and thrive. These are goals, and they all spell credibility, no matter which way you want to slice it.

In my mind, we don't have the luxury any longer of the lead time that we did have. We burned it up at the national, regional and state level. We need to stop worrying about the impossible and do something about the possible.

The first of these three deficiencies, as I perceive them, are: 1) Public involvement; 2) Equitable opportunity; 3) Effectiveness and efficiency of operations by capable employment in the public service areas. I'm not going to analyze these problems in depth because time just doesn't permit it, and the first of these two items requires treatment in depth and in different modes, at various levels of environmental program management - that need to be addressed perhaps in a subsequent conference.

The first one: public involvement. We're not creating meaningful opportunities for the public who mandated these programs that we administer, to truly participate. If you're going to operate a Mexican or Chinese food restaurant in Phoenix, you better be attentive and responsive to your clientele or there won't be any clientele. If you don't have the concensus of your constituency, you're not going to get a commitment from the people, speaking through their governor or their legislators in the budgetary process.

The second point - equitable opportunity. Are we creating opportunities that the socially or economically disadvantaged can really avail themselves of? Are we still saying, "A woman engineer would get snowed by the environmental control manager of the local tractor plant over a two martini and lobster thermadore lunch? That'd be the end of her day. We wouldn't get any production."

Are you really sure that the 60-year-old lab technician who's always checking on how the boys took their samples off the bridge couldn't get a full day in the field? And by the way, why couldn't a woman collect some of those samples, as well as a man?

Remember how often we hear, "Capable human resources are our shortest commodity." Why? It sure isn't because we enjoy a full employment rate in this country today. We Americans are known as wasters in other countries. Well, that's one thing that all of us here are very much aware of because so-called waste matter causes pollution of our environment. I think it's high time that we stopped wasting our human resources and started using the resources that God gave us.

I suggest that our mandate for manpower development and a real, meaningful, affirmative action program truly could complement each other, and we have an opportunity to make a social contribution to this country and to its posterity, second to none.

The third one needs little introduction to you. It's as simple as this. A hundred fifty thousand emitter permits, fifty-four SIPS, forty transportation control plans, eighty-five thousand NPDES permits, or whatever the numbers are, aren't going to mean a Tinker's damn if we don't have the people who can translate the technology into safe emissions, potable water and crops that won't poison us or their growers.

Now, let me talk just for a few minutes, if I may, about how we can get the job done. The job, from my standpoint, is developing a credible program that you can sell and how to sell it. I'm not talking about grantsmanship. I refuse to recognize that as a viable form or mode of government. There's no magic to this process. It involves logic, innovation, perseverance and persuasion.

I think most of you are familiar with the program cycle, at least from the state standpoint, as to when you are required to have a program developed and submitted to your branch chief or to your division chief, and from there on up to the agency director so that he can submit it to the Governor's office, and finally, it goes to the legislative committee at approximately the same time that the Governor is giving his

State of the Budget message at the beginning of the calendar year. At sometime between the preceding November and February come the budgetary hearings.

And finally, here comes EPA along with its guidance in about February after you've had your budgetary hearing. OK. What do you do in the absence of firm guidance that we can use to develop right now our FY'76 and FY'77 programs? I would daresay that in this room, half of you are locked in already to your program commitment and to your resources through June 30th of 1977. At least, we are in several of our states in Region V.

What I would like to say to you is, these are the days that you've got to develop a meaningful program that tells what you can get done in a prioritized fashion, and secondly, what it will take to do the job. Don't sit down and start worrying about how many people you need, or how much travel you need, or how much contractual money you need. Worry more about what the priorities are and set them down on paper. Establish what program objectives need to be accomplished in order to interface with other control dates, such as the June 30th, 1975 primary ambient - air standard compliance. The 1977 date in water. These are the things that you need to be concerned with.

How many new sewage treatment plants are going to be built or are going to be expanded, rehabilitated, are going from primary to secondary or tertiary treatment that need operators, after June 30th, 1975?

How many of you can say that back in your office, those of you who are state manpower planners, that you are truly aware of what your needs are over the next three-year period, at least?

The next item is to put this down on paper in the most succinct terms that you possibly can, and then price the thing out. Then, using the most positive approach you can muster, look at what a win-win situation is. You win your program, and the boss who has responsibility perhaps for coordinating the total program, enforcement, compliance and line of training, looking at his needs and what he needs to accomplish, one of the wins is for him. The positive approach must be taken, or we're all going to be lost.

There are tools that are available to help you, but you've got to make your needs known. If we don't hear from you - if the man in your agency who's responsible for aggregating the total program for your air pollution control program or the water pollution or the solid waste management program - if you don't make your program objective and your program priorities and what you need to accomplish within a certain time known, you can't expect him to give you much but lip service when you say, "I need - I want." It isn't going to work anymore. These are the days when we manage by objectives.

And what can be done to evaluate your own program? Are you merely waiting for someone else to come in? I'm not going to come in and evaluate your program for you. I don't expect Chet Shura to come in and evaluate your program.

What I do expect is that hand and hand you will look at what the goals were and the commitments that you made and how realistically they were accomplished. Where there are problem areas, I expect you to jointly evaluate these problems. Eventually, I would look for you to perform the evaluation of your own program and give us the conclusions of your evaluation, and then Chet Shura and his staff in Region V and the others in the other regions that are here will then sit down and try to help you with identifying the critical areas that can be resolved for next year.

I suggest that there are many resources that are available to us in the way of money that aren't even tapped. One of them is right within the 106 program. How many of you can tell me how much your state is looking forward to - for FY 1976 in 106 monies? I saw one hand. John Wright from New Mexico. I told him last night I wished we had him back in Indiana. We could really use him.

But, let's make a decision that you will utilize people that are available, and if it takes two, maybe three phone calls to get somebody down from Denver to your state agency or up to your agency, to your local air pollution control agency; make those calls and get the person out there, but let's make a determination that this is going to be done in a positive approach, because, believe me, this is the way the permit people are doing it; this is the way the compliance monitoring people are doing it, and it works. Let's make some real responsive progress this year and really win big for everybody.

MR. SHURA: Thank you, Jim. We're open now for questions to panel members, as well as myself.

MRS. KEMPE: I'm Jocelyn Kempe from Region VI in Dallas, doing the same job that Chet does. I would like to have either Mr. Marth or Chet please give a summary if you will of what your 106 training state plans do have in them because I know that you have some things probably that in our region and some others we don't. I think our state people would like to know that.

MR. SHURA: I will try to summarize without any hard data in front of me. Maybe what I can do is estimate from about three years ago what we had in each state in Region V and what we have now.

Illinois - Ernie, correct me, if I'm wrong - as of about three years ago, you had maybe up to part of a man year (most of that was in the certification and licensing function) and today you're up to about four and a half man years?

In Wisconsin - Wisconsin has really gone maverick and shown their independence, and in a way, insolence and arrogance. You must admire them because even though they are provincial, they foresaw decentralization years ahead of us, and they asked us to help them, assist them, two or three years ago when they had about a half man year operation. We worked with them on a few grants here and there. We proved the point, helped prepare their justification for their existence to the state legislature. Lo and behold, they came up with eight new people in training, and they decentralized to each of their districts, and now they're talking about adding additional trainers to each of their districts from CETA funds.

So, I think Wisconsin has jumped from about a half a man year up to an eight man year program, and that's in just water during the past two years.

Michigan has moved from a half man year to 4 1/2 man years of effort.

Indiana is sort of the maverick in our region, holding down our batting average. But even there, they've moved from nothing to the beginnings of a manpower function.

Ohio has progressed from about a half man year three years ago to about six man years of effort today. Jim Marth was Project Director, by the way, for a study that led to the creation of the EPA in Ohio. I was appointed on this study committee, and somehow, within our recommendations, we had a manpower planning and training function established right at the top. Bill Bunner from Ohio - he's here - is the State EPA Training Officer. He works across the board.

Minnesota. I don't know how Bill Sexauer stands the guff up there. He's a little workhorse - they get more work out of such a small, dynamic fellow. He's been offered jobs paying twice as much as he earns. He's so dedicated he won't leave because somehow Minnesota just can't get along without him. He feels that his present job is more challenging than anything else. He's up to about two and a half man years, but he gets plenty more mileage as a catalyst. If you listened to the vocational education discussion this morning, you know he's getting a lot of help with the voc ed system and through Minnesota's community colleges. He has infused himself throughout the system, and somehow in Minnesota, there is a lot more going on in environmental training than is apparent in the State environmental lead agency.

Sometimes we confuse success with the size of our establishment. There are many ways of getting the job done. Don't think in terms of how large you can make your staff or you can make other state staffs. Identify your needs and priorities and by any alchemy go and get the job done. There are many ways of getting it done. The vocational education people are there to help. If can be done in many ways, and it is being done in many ways.

MR. BRIDGES: Paul Bridges, Illinois EPA. Clean Water. I want to direct a question to Ed Richards. You mentioned in your presentation about an increased emphasis on the state's role in training, and granted that that's not only inevitable but desirable. I'm asking what resource data or material will EPA be prepared to provide to justify those budgetary increases in manpower?

And, specifically, I'm thinking in terms of, number one, a commitment continually or through various communications as to a change in this philosophy, and indicating through writing to our agencies or to the states, the states will be responsible for the programs, and number two, a possible compilation of staffing and funding levels of all the states in the various training areas which, in essence, could be used to reflect how far down or up an individual state is on the spectrum.

MR. RICHARDS: The point I was trying to make was that the way that training can receive increased emphasis and funding. I think it has to begin at the state level. I think you have to do a selling program within your agency, and put the state's objectives and program requirements in your grant submission to EPA. I think if you do that effectively you'll get response from the regional EPA office.

What I don't think is going to happen is that somehow EPA at the national level is going to mandate a change in the funding priorities or set aside Senate funds for training. I just don't think that's going to happen because of the other funding priorities. I think the way to get the emphasis is to begin at the state level.

MR. BRIDGES: Well, I understand that and, in essence, it follows down the line that if monies are not to be expected in potable water from the Federal Government.

The justification we need at the state level for staff improvements - and I hate to say that after Chet just said it wasn't really necessary - but for staff improvements or funding improvements would be enhanced considerably if we had data, if what you verbalized in terms of the state taking a more active role, or if you funded or had available a study showing where the states stand, showing that 1.5 man months of effort on a program is really inadequate as compared to the neighboring city. It's that unit of information that we don't have.

MR. RICHARDS: Well, it sounds to me like you're asking us for help in developing training as a priority within your state. We have those statistics available, and I'd be happy to send them to you or to anyone who's interested.

But, I don't think we have the analysis, per se, that Michigan has an adequate program and Illinois does not, you know. I think that our assistance to you in fighting that battle is going to be limited. I think the regional manpower people in EPA can give you a lot of assistance in that regard. I think that that's the most effective way to get help, to talk to them and get their assessment of how you stack up against the other states in the region, because it's the region that's going to be funding the grant.

MR. SHURA: Are there any other questions?

MR. ZAMCO: Miles Zamco, Illinois EPA. I'm a little disappointed in hearing that you cannot use incentive funding in order to establish manpower priority training, because, believe me, from the State of Illinois' feeling anyway, your incentive funding has had a lot to do with establishing our priorities, and I would hope that that same concept would be used in an area that we all feel is important.

MR. SHURA: I think, Miles, in answer to that, we need feedback from your level upward. It's got to be expressed upward through the channels in order to impact these kinds of priorities. If we get enough people from states such as yours who have your view, I'm sure the Fed's would reconsider the kind of standards they establish at the national level.

MR. MULHERNE: I'm Tom Mulherne from Fresno, California, and I have two interests in this Conference. Since 1972, I've been coordinating training of mosquito control people for the Vector Control Section of the State Health Department of California, and second as Executive Director of the American Mosquito Control Association. I'm concerned about the training of mosquito control people throughout the country.

The specific question that I will ask in just a moment is one of whether or not there is a possibility that EPA or someone may be able to compile a directory of all of the different potential aids for training which have been mentioned at this Conference today and which may be available elsewhere.

Now, the extent of the program that I'm talking about is probably reflected by a few figures, and in California alone, there are 85 different local agencies that are involved in mosquito control, involving approximately a thousand people each year. In 1972, with reading the EPA legislation, we did anticipate that there was going to be a need for upgrading in training. The California Mosquito Control Association came to the State Health Department and said, "Will you help us get ready?" So, we agreed to do this. And, since then, we have conducted training programs from this training manual. Since we had this published in 1973, it's already out of date because of the changes in laws. But EPA has given us a grant, and we are presently revising this manual. It will be ready very shortly.

We have conducted two certification examinations. Out of 714 candidates, we have certified 650 people. Reading the recently published standard, we are assured in our own minds that our people are qualified by EPA standards as well as our own. Our own go beyond EPA standards because we are taking into account biological control and physical control as well.

Now, we are presently engaged in, with the grant from EPA, rewriting a community test and related record control manual which our department prepared in cooperation with the Pest Control Association in 1969, so it also is obviously out of date with respect to changes in laws. So, at this moment we are in need of all of the training aids, all of the helpful procedures that we can find that anyone else is working out because this has turned out to be an extremely demanding task.

In our Vector Control Section in 1973, when we were conducting training for these local agencies, approximately half of our staff was involved for about three months by diversion from their regular tasks at from not less than 50 man months of continuous labor, and we have a continuing program going on now, and we will conduct another certification examination for specifically mosquito control people in the spring. By the 1st of July, we expect to be in a position to also conduct a certification examination for general vector control people in health departments.

So, again, let me come back to the specific question. Is it possible that a directory of all of the things that are available through state or local agencies or EPA or whatever can be made available so we know where to turn for training aids and where to turn for training services that can be had by request?

MR. SHURA: Are you speaking only of pesticides, sir, or across the whole environmental gamut?

MR. MULHERNE: I'm speaking specifically about vector control. I would think that the same sort of thing would be equally useful in the other fields.

MR. SHURA: All right. There are directories of training aids available, and for your purposes, specifically in pesticides and vector control, I would like to refer you to Mr. Bill Currie, Pesticides Training Officer of our national office. He may give you some assistance on that.

With respect to wastewater and air, I'm sure these kinds of directories, compilations have been made. Frank King could help you for air. Joe Bahnick has a lot of material for wastewater. I think if you check with your manpower officer in your region that he'll be able to get additional information to you.

MR. MULHERNE: Thank you very much. We've found the San Francisco EPA office very helpful to us. Those grants they've given us haven't been so very much, but they've made the difference between being able to accomplish some things and not being able to accomplish them, so we're going ahead, and like you said before, if the states do what they can, maybe EPA can find some way to help us out.

MR. SHURA: I want to thank the panel and thank the audience for some very interesting questions.

STATE TRAINING CENTERS - 109(b)

John L. Coakley, Jr., Moderator
Manpower and Training Branch - Region VII

Eugene T. Jensen
Virginia State Water Control Board

Michael E. Crawford
Kirkwood Community College

William M. Baley
Iowa State Department of Public Instruction

Charles C. Miller
Iowa Department of Environmental Quality

Jo Elen Zgut
Community College of Denver

STATE TRAINING CENTERS - 109(b)

JOHN L. COAKLEY, JR., Panel Moderator

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MR. COAKLEY: I'm Jack Coakley, EPA Regional Manpower Officer in Region VII, Kansas City. I'd like to observe that I've heard some comments around the meeting, some people are saying, "Well, what's in this for me? I've heard about CETA, I've heard about voc ed, but what's in it for me?"

Up to this point, you might look on this meeting as a trip to a lumber yard and building supply store. We have the lumber and the building materials presented to us. It isn't always obvious when you look at a load of lumber that that's a house in the rough. It's up to you, the state administrators, to identify what your needs are and take these building materials and adapt them to fit your needs, and we in the regional offices and our supporting elements in Headquarters will try to help you with that.

The building materials that are available may not be the materials that you'd like to have, but they are the materials that are available, and we'll have to use them, and we'll try to help you use them. It's up to the state administrators and their programs to determine if some thing is needed and to proceed to do the best we can.

Most of the state administrators are probably in the environmental field, probably engineers, and engineers are used to working with the available materials to produce the product that's needed. I don't think we're out of the element in proceeding with that. So, let's look at the things that have been presented so far as the listing of the materials that we have to work with.

This panel, in one way, is another section of that building material yard. At the same time, it's starting to tie some things together. We're going to try to show this afternoon how you can use some of these separate materials and build an environmental training program.

Section 109(b) is an element of PL 92-500, the Federal Water Pollution Control Act. This is one of the shorter sections of PL 92-500, but its brevity - only three sentences - should detract from its importance and potential.

Billions of dollars have been expended in building treatment plants. Many more dollars and effort have been expended in research and development to prove the technology of pollution control.

These are impressive statistics, but I would like to have you remember that statistics are what a football team accomplishes between the goal lines; statistics do not win the game. We need qualified manpower, personnel to operate these facilities, to monitor them, to see that they produce the effluent that they are capable of producing, and to meet the requirements that are imposed on them now. This takes qualified personnel.

It's up to our agencies to work with the materials available to provide the programs to produce the qualified personnel. If we don't come up with the personnel who are needed and a training program for them, utilizing the material we have, we may be like the football team that runs up 600 yards of total offense, and looses 2-0 to a team with 50 yards in total offense. Incidentally, I'm a Kansas City Chiefs fan, and they didn't do very well this year. I just hope we can do better in the environmental manpower field than the Kansas City Chiefs have done this year.

The hit-or-miss, or often neglectful, methods which have been used in training personnel for environmental facilities of the past, and still too often the methods used today, are no longer adequate. We need to come up with more concentrated and orderly approaches to training, and that's one of the things we hope to accomplish as a result of this meeting.

Section 109(b) provides that EPA may pay 100 percent of the cost of construction, up to $250,000, of a state center for training and upgrading waste treatment works operators and maintenance personnel.

Another provision--no more than one such grant may be made per state or to a group of states.

Third, the funds come from the state allotment under Section 205. Those are the construction grant funds that build municipal wastewater treatment plants.

Fourth, the state must make a commitment to carry out an appropriate program of training at the center. Such a state training center can serve as a focal point of a statewide training effort in wastewater treatment operation and maintenance.

This type concept could also apply to other areas - solid waste, water supply, pesticides, and so on. While 109(b) is specifically for wastewater, the concept is universal.

Steps toward development of a 109(b) project include the state placing it on its priority list. Construction grants are allotted on a priority system. This project must be on that list in order to be funded.

An application must be made through the regular channels of construction grants. It must follow the procedures which have been established there. The state water pollution control agencies are very familiar with that.

This procedure requires close coordination between the grant applicant, the state water pollution control agency, and the regional office of EPA. We have good support and encouragement from our Headquarters units, but the authority to make these grants has been delegated to the regional administrator. It is the regional administrator in each region who makes these grants, so you need to work closely with your state water pollution control agency and your regional office.

On our panel today, we're going to show how different elements can work together in one of these projects. Our first panelist you met at noontime, Mr. Eugene T. Jensen, the Executive Secretary of the Virginia State Water Control Board. Mr. Jensen was formerly one of the top officials in EPA in Washington, and in that role he played a big part in getting Section 109(b) into legislation. We appreciate his forethought and guidance in accomplishing this. Mr. Jensen.

MR. JENSEN: You know, your first mistake was in mentioning the Kansas City Chiefs. I think your second one was associating me with Public Law 92-500. You could probably do anybody a lesser favor.

About four or five years ago, whenever the infamous 92-500 was being put together, Senator Baker from Tennessee became rather interested in the potentials for constructing these operator training facilities in connection, generally, with the state university. He'd had some experience like that in Tennessee and was, I believe, convinced that this was a good route to follow. He thought that it would perhaps help to answer some of the questions which would be ultimately associated with the effective operation and maintenance of the nation's growing investment in waste treatment plants.

So, as 92-500 was formulated, these three lines crept into the Act, and they stayed there through a whole series of negotiations back and forth between the House and the Senate.

I'm going to talk today just for a very few minutes about how we're attempting to use this particular section of the Act in Virginia, and I think, in order to describe this, I have to tell you a little bit about Virginia.

It's a state with a population of slightly under five million people. Geographically, it's either large or small, depending upon whether you're from Rhode Island or Texas. It takes about four hours to drive it north to south; east to west, it extends from the Atlantic Ocean more or less as far west as Detroit or Cincinnati, something like that; so it's a peculiarly shaped state - quite large.

We have 95 counties, 38 independent cities--and they are independent--and 192 incorporated towns. Serving this population group, we have some 255 municipal city treatment plants. They have a total capacity of about 400 million gallons per day.

Mostly, they're secondary treatment plants, although they are also mostly hybrid plants. Because the Water Control Board has been very interested in the operation of these plants, almost all of the municipalities have added chemical addition systems in front of these--or they've added them one way or another, these biological treatment plants.

We currently have only two advanced waste treatment plants in the state, with about 13 or 14 more under construction which will be coming on-line in the next couple of years. Additionally, we have perhaps five or six hundred very small waste treatment plants that are operated by motels, etc. We have some 600 industrial waste treatment plants, some of them very large. We have about 10 or 11 large paper mills in the state, for example, and we do have some very, very large industrial waste treatment systems.

We have mandatory certification of operators for both municipal and industrial plants. We currently have about 1,400 certified operators. In addition, we have, of course, a rather sizeable work force of operator helpers, lab technicians, and so forth.

I'm going to mention our community college system. We have some 30 community colleges scattered throughout the state that tie together into a statewide system of community colleges. One that I'm going to mention is the J. Sergeant Reynolds Community College. It happens to be located in Richmond, the state capitol, of course, and more or less in the center of the state. It happens also to be exactly where the two major north-south and east-west interstate highways intersect.

The State Water Control Board has been quite active in the training of municipal waste treatment plant operators and industrial waste treatment plant operators for about four or five years. Initially, we worked just with Virginia Polytechnical Institute and State University in a cooperative short course such as many other states have had. This was kind of a one-shot, once-a-year effort.

This, over the years, has evolved using largely Department of Labor funds (some half-million-dollars-worth of them over the years) into a relatively well-institutionalized training program. We have a Division of Training; we have about six or seven people in it full time.

We have no delusions though about being able to get our sewage treatment plants to operate just by having trained operators. The Board also has a rather well-organized, I think, system of inspection about once a month for all of our larger plants. We do efficiency surveys at the rate of about one a year. We have self-reporting. We have a permit system that predated NPDES by a couple of decades. We have lab certification. We publish the operating results of all the sewage treatment plants in the state--all of the larger ones. This information is published about every three months. It's available to anyone who wants to look at it.

In some cases, the Board has ordered the operating units to publish the results in their local newspapers, so we try to keep a lot of publicity focused on our operating results. It does encourage the operator to try to do a good job. It also encourages the municipal policy-makers to support their operators.

We decided then, about a year ago, to try to go with the construction of a centralized training facility, and we started to do this by establishing a task force to advise on what we should do and how we should do it. We asked the Virginia Water Pollution Control Association, the Municipal League, the Water and Wastewater Operators Association, and the Virginia Society of Professional Engineers to join together and set up a small task force to consider the opportunities that might be present in the Act.

We also contracted with Rust Engineering to advise us on the opportunities that might go on with a packaged sewage treatment plant facility. We asked the representatives of the community college to try to present their views on why we should go the educational route. We asked the managing director of one of the larger municipal sewage operating agencies in Charlottesville to make a case for associating with one of the municipal authorities.

And finally, our own staff undertook to defend the concept of bench-scale training. It turned out to be a rather interesting exercise. We started largely with the conclusion that we were going to build a pilot plant, probably in connection with a large municipal system. We completely turned that around in the course of our deliberations and decided instead to go the route of small bench-scale units associated with the J. Sergeant Reynolds Community College in Richmond. Further, we decided to make that a part of a statewide system. I think the rationale behind it all was a focus on the word education rather than sewage treatment plant.

The Operators Association felt that the educational environment would far out weigh any of the other advantages that would go with hands-on facilities. They felt we were involved in upgrade training. By encouraging their members to become associated with educational facilities and the community colleges, it could lead over a period of years to a rather substantial increase in educational levels for many of their members.

We're not going into a lot of details. The whole program that we hope to undertake will be tied in to the community college system; the people who attend our training courses will get college credits for taking these courses and, hopefully, will go on and further their education, either through the community college in Richmond or the many other participating colleges throughout the state.

MR. COAKLEY: Thank you, Gene. Our next portion of the panel is going to be a panel within a panel, with three representatives from Iowa because Iowa has received the first 109(b) grant in the country.

The three agencies represented are the Iowa Department of Environmental Quality, Kirkwood Community College, and the Iowa Department of Public Instruction, and they have worked together to put on a program. I think this panel can further the illustration of how some of the building planks we've had previously may be put together into a training structure for the environmental needs we have.

Dr. William M. Baley is Associate Superintendent, Area School and Career Education, Iowa State Department of Public Instruction. Michael Crawford is Director of Development, Kirkwood Community College. Charles C. Miller is Chief of Planning, Iowa Department of Environmental Quality.

MR. CRAWFORD: Thank you, Jack. When the three of us were first contacted, it was mentioned that we were to talk 10 or 15 minutes apiece. Then it went down a little bit, and then it went down a little bit more, for good reasons, I'm sure. We've gotten it down now to one presentation.

We do have the grant approved under 109(b). What caused this success? I think if we were to point to one thing, it is something that was discussed this morning. It's something that has come up a number of times in the discussions here, and that is cooperation.

Our discussion may also sound like everything is terrific, which isn't the case all the time. We do cooperate in Iowa, and I really think that that is a very important key. The reason we received the contract at Kirkwood is the very fact that these two agencies did what they did in cooperation with EPA.

Today, Bill Baley is going to tell you about the State Department of Public Instruction and Charlie Miller will discuss the Department of Environmental Quality. I'll bounce back and forth.

We in Iowa, and Bill will tell you about this, have all education programs approved by the State Department of Public Instruction. Also, any facility that we build on our campus must be approved as preliminary specifications and as final specifications by the State Board of Public Instruction. We just went through a series of meetings with this state agency, and it was very encouraging to receive their support in allowing us to move as quickly as possible.

So, with that, Bill, why don't you take over.

MR. BALEY: Thank you, Mike.

Some background information is appropriate in order to place my remarks in the proper perspective. In 1965, the General Assembly of the State of Iowa recognized the need to extend and expand post-secondary educational opportunities to the people through the creation of a statewide system of comprehensive community colleges and vocational-technical schools. Fifteen of these institutions were created with twenty-six attendance centers to serve the State of Iowa. These two-year post-secondary institutions, which offer programs of two years or less, were brought into being through the enactment of legislation contained in what we refer to as Chapter 280A of the Code of Iowa, which states in part, "It is hereby declared to be the policy of the State of Iowa...to offer to the greatest extent possible educational opportunities and services in each of the following areas, when applicable, but not limited to..." and there are 10 points cited in the law. I'll confine my reference to those pertinent to this topic.

Subsection 3 of the legislation states, "We should provide programs for in-service training and retraining of workers."

Subsection 9 states, "Training, retraining and all necessary preparation for productive employment shall be provided all the citizens of the State of Iowa."

This historical overview provides a brief description of how our post-secondary educational delivery system was established, but more importantly, the purpose for which it was created. This is obviously one of the reasons Iowa is in an excellent position to initiate and develop strong and viable state training centers. It may be of interest to you that at the present time 42 of the 50 states have some form of post-secondary two-year institutions.

Since John Ropes mentioned in his letter to the conferees that panel members would be able to offer you many how-to-do-it ideas that have worked in various states, I strongly recommend to you that if you have not already done so, that you contact the state director of your community college system and vocational-technical schools as well as the state director of vocational education. These people are in an excellent position to help you implement training and retraining programs for the people of your state.

Our agency's organizational structure is somewhat unique and contributes to our ability to rapidly respond to local, state and national manpower training needs.

Both the state director of vocational educational as well as the state director for community colleges are in our agency and under the direct supervision of my office. Coordination and cooperation pose no problem. Bureaucratic red tape has been eliminated.

Our philosophy at both the state and institutional level is to identify individual and societal needs, and in turn develop educational programs to meet these needs. This is done in cooperation with our locally based community colleges and vocational-technical schools. Once a need is identified, a prescribed procedure, too lengthy to go into here, is applied which enables us to implement programs within a short period of time.

We encourage institutions under our jurisdiction to identify and initiate programs to meet the emerging manpower needs of society. Certainly, the wastewater treatment training program at Kirkwood Community College falls in this category. An advisory committee made up of people knowledgable in skill training in a specialty area is always utilized. Thus, the product of the program develops skills identified as those needed by the prospective employers.

Mutual respect, along with faith and confidence in the professional ability of the institutional training center to adequately meet the urgent and critical needs of the people, is obviously essential. In Kirkwood Community College we found all of these characteristics.

Our advice is to avoid, if at all possible, institutional infighting within the system. This is devastating to say the least. Also avoid pressure over locations versus expertise. It's obvious which of the two should receive the top priority.

And, above all, place programs above local and state politics.

Our agency strongly supports entry-level training and upgrading of workers. Cooperation between state and local agencies is obviously essential in meeting the manpower training needs of people. A mutual trust and respect between agencies must be maintained. Input, both vertical and horizontal, is imperative.

A commitment to bring educational training to the people is the key to success in this endeavor.

Who is best qualified to do the job? This question must be answered in the selection of the institution to provide a one-of-a-kind type of manpower training. Resources necessary are money, facilities and personnel.

Place your program where the best resources exist within your state. It was on this basis that we chose to place the wastewater treatment training facility at Kirkwood Community College in Cedar Rapids, Iowa. It's an excellent institution, with strong, dynamic leadership and a dedication to bring educational services to people.

Our agency also administers the vocational educational component of the new federal legislation called CETA, replacing the Manpower Development and Training Program, which was also under our jurisdiction.

Implications for environmental manpower planning under this act should be recognized and utilized. We certainly plan to do so in the State of Iowa in cooperation with designated prime sponsors under the act. Be sure to explore the training and funding possibilities in this new area.

The winds of economic change and current unemployment statistics suggest that a federally subsidized employment program authorized by Congress may be appropriate to cope with our present economic conditions. If such federal legislation is enacted, it behooves all of us seriously to petition members of Congress to consider the feasibility of utilizing a portion of these funds to meet the environmental training needs of our society. We plan to do so. State training centers can do much to alleviate unemployment and also provide in-training manpower to meet our current environmental needs.

In conclusion, I would like to thank Dr. George Pratt and Mr. John Ropes, and the staff of the Office of Education and Manpower Planning of the United States Environmental Protection Agency, for the opportunity to be with you here as a panelist, and we look forward to working with these fine gentlemen in the future.

We would also like to recognize sincerely the fine spirit of cooperation extended to our agency by Mike Crawford at Kirkwood Community College and Charlie Miller in Iowa's EPA. Without the help of these gentlemen and the agencies they represent, the rapid progress that we have enjoyed in reaching our state training center goal could not have been achieved. Thank you.

MR. CRAWFORD: Bill said one thing I would particularly like to emphasize, and that is that all these responsibilities are centered in his office. Under his responsibility and authority is everything necessary for us in getting the job done. Somebody on the vocational education panel this morning made reference to the fact that state environmental agency staff need to get together with state education staff, and in this instance, we've done that.

For example, the Department of Environmental Quality offers a number of training programs, but we have cooperated with them in that endeavor. We provide them with classroom space, whatever kind of supportive services we can to help them get the job done, and in turn it is particularly significant to note that they have supported us on any of the programs we've offered in environmental education. They recognize the fact that we have expertise when it comes to education, and we can do the job for them, that they don't necessarily need to do the job themselves.

MR. MILLER: Thank you, Mike. I'm going to tell our involvement with this training facility. We have a certification board for wastewater and water treatment plant operators like most states do, but we're kind of, I would say, unusual to many states, because our population is spread out. Somebody once told me we have a person every square mile, and I believe it. We have nine hundred-and-sixty-some incorporated communities in Iowa. I think there are over eight hundred-and-some wastewater treatment facilities in Iowa, so it gives you an idea that we're talking about one heck of a lot of operators of various skilled levels.

In the past, we've tried to have training for these people, both--as Mike mentioned DEQ has had training programs, extension service from the university has had training programs and the community colleges have particularly been involved in these training programs. However, this kind of training is more or less laboratory or lecture type, and many of the operators whom we certify will be the head man in a small facility, right out of the certification, as soon as he passes his test, which means the man will never have an opportunity to actually operate a facility prior to being in charge of one. This is, shall we say, not the desirable situation.

Even those operators who are fortunate enough to be allowed to apprentice in a metropolitan area, in a large system under a trained operator, don't get the opportunity to play with or upset a plant to see the various alternatives of what happens and to correct these things, because an on-line facility must not pollute the river. Therefore, we need, and we've for a long time recognized the need, for a training facility where the operator can actually get his hands on the plant, upset it, straighten it out, what have you, and we've been very interested in this.

Mr. Jerry Svore, the Regional Administrator for Region VII, wrote us a letter in January of 1973 urging us--and, incidentally, it was a letter to all the states in our region--to get on the ball and get this training facility going. It was a letter specifically pointed for us to get the move on, and it takes something like that to jar us loose. We looked at it and we decided it was not a bad idea. So, we did, and we got to thinking where should we have it.

Well, we made a decision that we'd like to have it in Cedar Rapids, Kirkwood Community College. We decided to have it at Kirkwood Community College because they have been foremost in the education of environmental training in Iowa. They've had some of the best programs, so it was an immediate decision on our part.

We wrote the Mayor of Cedar Rapids and asked him if he would be interested in having such a facility at Kirkwood, because the facility must be operated in conjunction with a municipal treatment plant. The Mayor was excited about it. He got a hold of Dr. Selby Ballantyne, who happens to be the President of Kirkwood Community College, and within two weeks they had a letter drafted back to us which we sent to EPA, indicating that they were interested in applying for this grant, and building a facility at Kirkwood. I imagine at that time they had already contacted DPI and did all the footwork, so we really didn't do very much except call them up and say, hey, let's get it going, and that's what we did.

They jumped at it and within about two months the application was in our office. We noticed that it wasn't exactly compatible with any of the municipal waste treatment facility applications, and we, like everyone else, have formulas by which you rank these various facilities for putting them on a priority list.

Well, this training facility was not compatible with any of our formulas. It would not have worked out. So we just made a decision to put it at the top of the list. We didn't justify it or anything else; we just stuck it at the top of the list.

When we went to our Water Pollution Control Commission, we said we must have this at the top of the list. We need this facility; we need to train people; we want it there. They agreed with us. They said put is there and let's go.

So we went to public hearing. Not one complaint. Now, we probably could have gotten in trouble at the public hearing, but maybe we did a good job of selling the need for trained operators. But there was no one who complained about having the training facility at the top of the list, so it went right on through.

Went down to EPA and they approved the application, and I believe the thing is under construction now. So, as far as DEQ is concerned, we're very, very happy to have this facility in Iowa; we need it desperately.

MR. CRAWFORD: Charlie, it's not under construction yet. It's presently in the hands of EPA engineers for final specification approval.

I did bring with me a mock-up of the plant facility. As some of you know, we also did an implementation study for EPA concerning 109(b) at Kirkwood in conjunction with J-TEC Associates, a firm in Cedar Rapids. Out of that study came the design for our training facility, and that basic design remained almost exactly the same as the final specifications we sent to Kansas City about a month ago. That study was therefore very significant.

As I said, I did bring the mock-up. I also have a copy of the final specifications with me. If anybody is interested in looking at them, I would be happy to take the time to do so. Two-hundred-fifty thousand dollars for the 109(b) grant isn't enough, but it's a start. We have tied some of our own money into the project because we felt committed to do so.

MR. BALEY: We at the state agency obviously are willing to put our share of CETA funds into this type activity, but in addition - and more importantly - we're also committed to channeling vocational education training monies into this type training activity. I mention this only because those of you who may wish to contact the state director of vocational education in your state might cite Iowa as an illustration of the fact that we have placed this type training high on our list of priorities of people needs. Some states are reluctant to make this type commitment with no good, valid, justifiable reasons.

MR. COAKLEY: I think that illustrates how--$250,000 is not a lot, but through cooperative action, it in effect is seed money that can produce effects far beyond the $250,000.

Our final speaker on the panel is Jo Elen Zgut, Division Director for Community and Personal Service Occupations at the Community College of Denver.

MS. ZGUT: Thank you, Jack. It's a real privilege for me to be here, even though it was a little bit complicated getting here. But I think that it was an advantage to be able to attend both conferences, because I see the same thing being talked about - both here and at the American Vocational Education Association Conference about the needs of people for you and me and everyone involved in any way serving people means cooperating with them to get these needs met.

I won't go into the various types of cooperation that are necessary. I would assume that you know that the sky is the limit when it comes to cooperating, and you can make things happen if you will by cooperating with others.

The thinking and talking stages of the proposed Colorado State Wastewater Training Center began in the fall of 1973. The Community College at Denver was completing its last contract with EPA and MDTA for the training of wastewater plant operators prior to the time of the state picking up the funding of that program.

This project has been quite successful, and a great deal of communication and cooperation has been generated through it with the Region VIII EPA office, the Colorado Department of Public Health, and many of the wastewater plants in the area.

The local wastewater plants have accommodated all of the on-the-job training which was necessary to the project, and in doing so became very aware of the value of the trained employee. Simultaneously, the college was offering courses leading to an Associate degree in water and wastewater technology. This program was approved by the Colorado Commission on Higher Education and the Colorado State Board of Community Colleges and Occupational Education. The stage was therefore set and evidence was available that the Community College of Denver was able to provide the necessary training to meet the needs of this profession.

The industry became aware of the services which were available to the college as more employee operators and supervisors began participating in the training available.

A very active advisory committee, made up of individuals in the field at various levels, has been working with the college since 1971. This group has been invaluable in their assistance in the development of curriculum and recruitment of students, and now they provide additional assistance and support in determining the need for, the value of, and the use of a training facility which would meet their training needs.

The excitement generated in the industry by the possibility of having a state training center encouraged the college personnel and administration to make a greater effort to bring this center to a reality. The college's lead teacher in the water/wastewater technology program, Carl Hill, an experienced wastewater plant operator and teacher, was given relief time from his teaching assignment to concentrate on doing the research and making his efforts in the writing of this proposal.

The regional EPA office and the Colorado Department of Health staff provided almost daily assistance and counsel as to the direction the college should go. Management and labor personnel from the more-than-eleven wastewater plants with which the college is associated were asked for opinions and advice.

The pros and cons of remodeling a soon-to-be-abandoned wastewater facility in the metro Denver area was investigated. This idea was discarded in favor of building a new facility on the college campus due to location of the facility, its capabilities (or lack of), and due to the additional services and opportunities which would be available at the college site.

The following factors are some which entered into our decision to build on the college site, or at least to propose that we build on the college site.

One. The college has available land on campus that it would be willing to commit to such a project.

Two. Collection lines could provide an adequate amount of flow for the designed plant, and they are located near the proposed building site.

Three. The effluent from the facility would be returned to the collection system transported to the municipal treatment facility, thus eliminating the problem of meeting standards for receiving water and opening the door for state treatment, upset and correction without the concern of polluting receiving streams.

Four. The availability and close proximity of the school to the plant would make more areas of training, such as library, labs, and other instructors, much more accessible to the students, and would expose them to an atmosphere of higher learning which would motivate them and upgrade their thoughts toward the field of wastewater treatment.

Five. Other programs at the college would utilize the plant to enhance training in this area. An example of the programs which might benefit from the training facility is the environmental technology program which we have, as well as the general areas of science--the sciences, such as chemistry, biology and even business.

Six. The college is in close proximity to a variety of living units and transportation, as well as restaurants and this type thing. The college also has several buses available which could transport students on field trips, to training sites, and to other related training functions. Also, the college can provide, or there are facilities near the college for shopping center, movies, recreational areas, and so on.

Now, these were points which were made mainly because it is a community institution, and this would be important for us to include in our proposal at this time. It was also decided that the location of such a training facility in the Denver area would allow for maximum utilization for the following reasons.

Denver is centrally located in the state and has the largest concentration of population in Colorado and also in Region VII; transportation by buses, trains and airlines is readily available to and from the Denver area. There are many wastewater treatment facilities in the region which have expressed an interest in the proposed training facility project, and they have analyzed how it could be utilized for their needs.

Ideas that have been mentioned which would be possible to implement with such a facility would be:

One. Benefits would be realized from such a facility in that upgrading of operators already in the field, who are operating a particular type of facility or system and would be likely to gain more knowledge about this particular system, or the possibility of being able to gain knowledge of other systems with which they are not familiar. Also, individuals who would like to learn particular laboratory procedures could utilize these facilities for sampling and testing in the particular analysis they are interested in performing.

Two. The possibility of using the plant to conduct experiments on upgrading their operating procedures and research for other facilities may also be of particular interest for these reasons - because the planned connection of the effluent to lines of the private plant and collection experiments which upset the plant could be conducted. Problems of plants having to build mock-up units to perform experiments could be eliminated, resulting in a savings of valuable time and money.

Also in this situation, operators, instructors, and other interested individuals could gain valuable knowledge which they might not otherwise receive. Monies might also be saved on such items as chemicals that would not have to be used in such large volume as might be required in natural plant operation necessary to maintain standards.

The pilot plant facilities will be used for holding seminars on particular types or aspects of treatment for groups or individuals who will be gathered from different areas with a particular area of interest. These types of seminars could be very beneficial to individuals who could not commute to the facility on a daily basis, but could arrange to spend periods of time on a limited basis for concentrated seminars.

Even though a particular benefit will be realized from this facility and the training of entry-level operators and the upgrading of people already employed in the operations field, the facility will also be used to train in different areas, such as maintenance and collection. The plant will afford an excellent opportunity for the individual to be able to receive hands-on training in the servicing and repair of mechanical equipment.

The plant, combined with the laboratory facilities, will be used for the training and upgrading of laboratory technicians in the field of water and wastewater, or in other fields that can apply this type of instruction to their particular area of training.

The question of how many people will be trained at a time in a particular field, and the curriculum which should be taught, should remain flexible, dependent upon the different situations and circumstances that may prevail at any certain time for any certain group.

With this concept in mind, it is felt that the different objectives of individuals can be met and training would become more beneficial. In training in any field, the importance of hands-on training cannot be overemphasized as a significant learning process. Theory, plus application, makes a winning combination.

Our water quality program is conducted through our Department of Public Health, and efforts that are being made at the present time to transfer the training that is available there to the new training facility, or even to the college before the training facility is available.

There is so much I'm sure, that we would all like to tell you and could tell you about the ins and outs and many, many pitfalls, but the pleasure is that we've all gained from being able to work in this area and learn so much about it. I thank you all for having me here. And I especially thank Kirkwood College. They've helped us tremendously, although we never visited them and they never visited us; but they set some foundations that we were able to follow.

Now, because I'm going to be leaving this evening, and maybe you would like to be able to talk to someone from the Community College of Denver who has been very involved in the development of the proposal, I'd like to introduce to you at this time the coordinator and instructor of our wastewater program, Mr. Carl Hill. He can give you the particulars. Thank you.

MR. COAKLEY: Thank you, Jo Elen. I want to thank the panel, and we're over time now, and I'm sure that if you have any questions, they will be happy to answer them if you will just contact them.

While we're changing panels, I want to recognize Bob Rose, Chief of State and Local Training Activities in the Water Programs, who has some further material on 109(b). He is one of our national resources on this, so while we're changing panels, Bob, would you talk?

MR. ROSE: Thank you, Jack. This morning, at the registration desk, I laid out a series of documents relative to 109(b) for those of you here who are interested in the technical concept of an application and the process by which one is approved. So on your way out today, if you'll stop by the registration desk, I believe there are ample copies there. I had about 200 of each document.

The first item is the Program Guidance prepared by our office in submitting for an application under 109(b). It contains the requirements of the narrative, the justifications for budget - this type of information.

Another document at the table is the General Counsel's legal interpretation of what is allowable and not allowable under a training facilities project. There are a lot of alternatives available to a state or local agency or educational institution buying and constructing a 109(b) facility. General Counsel's comments on this are also at the table.

The third item available is the actual application for the grant under 109(b). It is EPA Form 5700-32. An additional item is the Construction Grant Title 40, which has throughout it the requirements of applying for 109(b) as it pertains to the construction grants process.

Not available at the desk, but which can be obtained from the various regional manpower offices, is a copy of what Mike Crawford spoke to you about, and that is the pilot demonstration study that we funded in conjunction with Kirkwood, the feasibility of constructing a $250,000 facility, including the general specifications and the various component parts of the facility. That is available through the regional office, so contact your regional man for that, if you're interested.

I might reiterate one point that Jack made, and that is this: The 109(b) application is to be submitted for approval to the regional office, not to Washington or any component portion of the Washington organizations. The application is subject to the approval of the Regional Administrator as any other Section 205-funded project.

MR. COAKLEY: Thank you, Bob. Are there any questions pertaining to this topic?

MR. ROPES: I've got a couple that I know they want to ask.

MR. COAKLEY: All right.

MR. ROPES: I think this panel so well displayed how agencies can work together. I want to ask Bill Baley, who mentioned the use of CETA and voc ed money, how these monies can be used.

MR. BALEY: Well, the state educational agency receives a portion of these CETA funds for vocational training. We also have the regular vocational education monies, so those are two different pots. But in Iowa, for example, we have over $500,000 which has been allocated to our agency through CETA for vocational training and retraining of people. We plan to utilize these funds to bring about this type, and other kinds, of training for the benefit of people who are underemployed and unemployed. So there's a mix of two funds you can call upon, and, hopefully, you can link the two.

MR. ROPES: Now, Gene Jensen. Gene, now I'm sure, in selection of the Community College at Richmond, they'll be using institutionalized vocational education monies there to help continue the program. Is that correct?

MR. JENSEN: I'm sure that's the way it'll work out. We've worked before with the use of MDTA funds, for the past four or five years. We currently have a small CETA-funded project, and I would anticipate as this project is completed, we'll work out better arrangements for the use of CETA funds.

MR. ROPES: All right. Jo Elen, would you respond? Are you using voc ed monies, too?

MS. ZGUT: Yes. Our community colleges are state supported, and all community colleges that have occupational education involved in them do use vocational funds as well as state tax dollars, and we will be working closely with the CETA people, too, as soon as we both get organized.

MR. ROPES: So, a new-entry person could come in from CETA and go through and be paid a stipend while he's going through the course, taken as a new-entry.

MS. ZGUT: Yes. We have the capability right now, with the funds that we have from the state agency, to take individual referrals under CETA, probably similar to the way they went through on MDTA.

MR. ROPES: One final question that I know somebody asked back there. Would you see these plants being used for upgrading, bringing people in to upgrade? Maybe start with Jo Elen? I think you said yes.

MS. ZGUT: Yes. We very much feel that. We find that the majority of our students at the present time are upgrading students. In fact we're desperate for pre-service people right now, and this is definitely where the CETA program could help us, because we have many positions going begging; 90 percent of our students are upgrading students.

MR. ROPES: Gene, are you going to upgrade?

MR. JENSEN: Yes, it'll be used for upgrading.

MR. BALEY: Yes, John, and we feel very strongly about this and want to encourage this effort.

MR. ROPES: Iowa? Well, you both responded together.

But so much concern was expressed, and I think rightfully so, that we've missed maybe one of the targets here. Because of the great need - such a great need - in upgrading, I would see these combined resources together as one approach; not the only approach, but at least one approach to get at upgrading.

MR. BALEY: John, I think that in addition to what we've said here, the key to this effort is to link money wherever possible and maximize the utilization of those funds.

MR. COAKLEY: I think another good thing that might be considered, too, is that this need not be a fixed base operation. There's only one training center we can fund for a state, but the capability there can serve the whole state. That capability can go out to the parts of the state that can't necessarily come in to the center at any particular time. And that spreading across the state--I think that also involves the vocational education and CETA funds.

Thank you.

STATE LEGISLATED TRAINING CENTERS

Franklin J. Agardy, Moderator
URS Corporation

Robert V. Daigh
California State Water Resources Control Board

Charles W. McElroy
California State Water Resources Control Board

Robert F. Crabtree
Idaho State University

Ernest C. Bennett
Illinois Environmental Protection Agency

Arthur A. Baker
New England Regional Wastewater Institute

STATE LEGISLATED TRAINING CENTERS

FRANKLIN J. AGARDY, Panel Moderator

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DR. AGARDY: Well, ladies and gentlemen, we're going to start what now turns out to be the last session of the afternoon. We're going to try to limit the individual presentations by the speakers because I have a hunch that there may be some questions at the end of this session; and since we're not constrained at the other end, we can afford the luxury of perhaps running over a little bit.

The title of this particular panel is "State Legislated Training Centers," and all of the panelists have been asked to direct their remarks to programs that they are involved in--in terms of the cost of the program and the funding of the program. And, of course, this problem of funding is an age-old problem, and it lives with just about every bureaucratic society. And here in the United States, we have this ideal circumstance where we give our tax money to Washington, then they try to figure out some way to give it back.

But it really isn't a new system. The Romans used much the same sort of arrangements with all of the provinces, which they one-by-one managed to conquer to make up their own empire. They also were bogged down in certain types of bureaucracies, and they tried to use some sort of share-the-wealth programs.

So what they would do--they knew how much tax should be coming from each of the various provinces that they controlled; and they would let the local province submit a formula or mechanism by which this money would be broken down, with part of it going to Rome and part of it remaining in the local environment to take care of local needs. And, as many bureaucracies have a tendency to go, these plans came in and were not very thoroughly reviewed. Generally, they were approved in concept, and then everything went hunky dory; and the money would roll into the coffers of Rome, and periodically their equivalent of the OMB would go and find out, you know, whether they were getting the appropriate revenues. And they discovered that one province somewhere in Central Europe had submitted a plan which had been approved, but for some two years no money was coming to Rome.

So they sent out one of their representatives from Rome to find out why the money wasn't coming. When he got there, he met with the local officials, and he was told rather matter of factly that the local entity was indeed following the formula that had been submitted to Rome and upon which they had had approval.

The fellow couldn't understand. The people were living extremely well; there seemed to be plenty of money around. Why wasn't any of this tax money coming to Rome? So he asked them to review the procedure by which they divided up the funds--the local monies versus the government funds--and he said, well, what we have approved from Rome was the formula we use here. We collect our money monthly. All of this money is then taken to the town square and representatives of our local government take this money and fling it up in the air. Everything that stays in the air goes to Rome, and what comes back on the ground stays locally.

A lot of us feel maybe that system should be applied once again, and maybe we'd get a better apportionment of dollars between the federal government and the local political entities.

Now, my role on this program as moderator has very little to do with training as such. While my background includes some eight years to ten years in the academic field, the organization I presently work for is only peripherally involved in training.

I actually represent on this panel the taxpayers' interest, and so I'm vitally concerned with how the tax dollars are spent, federally and locally, when it comes to training programs.

Needless to say, I'm not only a contributor in terms of taxes, but a contributor in terms of waste load; so I'm interested in seeing to it that the plants operate a little more efficiently at the other end of the system.

Now, we have representatives on the panel from four states, and each of these representatives is going to tell us a little bit about how their state operates, with emphasis on the costs and the funding for the program.

California has the unique distinction of having two representatives on the panel because we are a long, narrow state, divided north and south, so we have one representative from the northern part of the state and a representative from the southern end of the state, because that's the only way Californians are allowed to attend conferences outside the state--equal proportionment.

Bob Daigh is by title the Section Chief, Operator Training and Certification Division of the Administrative Services, State Water Resource Control Board for the State of California.

The title is a rather fancy one; however, Bob is a pretty basic kind of guy. He's been involved in training for a fairly long time. He's been active not only regarding the state programs, but also in the professional organization programs within the State of California, and I think he is a most adequate individual to speak on California's training program for wastewater treatment plant personnel. Bob?

MR. DAIGH: Thank you, Frank. I'd like to tell you for one moment our plans that we have in California--our training plan--and we do have a plan. We don't have the EPA set-up in California; everybody operates on their own. Well, that may be fortunate or unfortunate. I'm not sure which.

We are the Water Resources Control Board. We are the Water Quality Control Branch of the state government, and as such, we have a training and a certification program for wastewater treatment plant operators.

Back in 1970, the state passed what they called their Water Quality Control Act. There's a small section in the back that says that the Board will conduct training programs throughout the state. It says that, but they didn't give us any money.

So, we were relying upon the EPA for a number of years for our programs. Now, we do have a State Training Center, which is called our San Marcos Training Center, and I'm not going to say a word about that because another speaker will tell you all about that program.

For four years, since 1970, we have operated MDTA programs. We have trained about 475 people in this program, at a cost of about $280,000.

In California, we have 750 plants, thereabouts, and we estimate about 3,500 operators. Like other states, we are still growing. Perhaps we should take some of those signs back.

And as we grow, of course, the pollution problems become more; and with these we need trained people to operate these plants, and this is our goal.

Now, together with the San Marcos program--again which you'll hear about in just a moment--we have spent, since 1970 through June of this year, $586,000. About half of that has gone to the San Marcos center.

For the first time, the state saw fit to put a budget item in this year's budget for training, and we had tried as I say for about four years to get this into the state budget.

Being an austere and cutting budget, it was hard to get a new program in the state budget, but we did succeed. Now we hope to get increases in the years to come.

I think one thing that has helped our training program is our mandatory certification program, which went into effect last year. We have given two exams in this time to over one thousand applicants, and we have passed, I would say, about 50 percent of these applicants. I would say about 25 percent had been in the Grade 1, which is our starting grade.

And this has done much for our training program because we find that the operators, again, are eager for training and increasing all the time.

The more you hear about this CETA program--I'm not too sure about the proposal that we have just submitted, whether it will be OK or not, but we have submitted a proposal to our State Planning Council; and, hopefully, this will be given an OK so that we can expand our programs. We hope to expand this in our mobile lab program as well as sponsoring what we call a 24-week program throughout the state.

This is the program that we sponsored under the MDTA project, and we've found they work out very well. The men went to school twice a week; they have their own jobs, on-the-job training, and they had to have six one-day seminars throughout that 24-week program.

There is another program being started in California which is using the simulator trainer. Maybe some of you have heard this; I think they do have one in Charles County, Maryland. We're sure that this will be another way to train our people.

I'm going to leave Chuck McElroy to tell you all about our San Marcos program. Thank you.

DR. AGARDY: Our next speaker is Chuck McElroy, who is the Director of the San Marcos Training Center in Southern California. Again, the background which Chuck has for this particular job, I believe, is interesting. By way of introduction, he has worked for the Department of Water Resources in the State of California, for the Department of Public Health, and also for one of the Regional Water Quality Control Boards in the state, so he has been involved with many aspects of water and wastewater within the State of California and brings these credentials then to his job as Director of the Training Center.

MR. McELROY: Thank you, Frank. For my part of the program, I'd like to relate to you some of our experiences in operation of the San Marcos Training Center. Also, I'd like to give you some of our cost information. To start off, I do want to mention again that the San Marcos Training Center is an agency of the State Water Resources Control Board, and we are included in the state's general fund.

To give you a little background: The Training Center at San Marcos was established with 104(g)(1) money in 1971. In San Marcos, at that time, there was a 300,000-gallon-a-day activated sludge wastewater treatment plant which had been abandoned about two years previously by the San Marcos County Water District.

With the federal money then from 104(g)(1), the State Water Resources Control Board went in and rehabilitated and remodeled, and added classroom facilities to the existing wastewater treatment plant. It cost about $97,000 to go through this rehabilitation. As you can imagine, a plant that has been sitting abandoned for two years does require extensive rehabilitation.

Also, we built in some variability as far as flow pattern and loading conditions, so that we could demonstrate different modification of the wastewater treatment plant processes.

The existence of the operating, full-scale treatment plant at San Marcos is a unique feature, and it does give us the ability to talk about a particular process or piece of equipment, and then take the man out into the plant and let him get his hands on it. It is a very effective program.

The effluent from our wastewater treatment plant is discharged into the collection system for another treatment plant on the coast. This gives us the flexibility to upset our plant or to bypass our plant or really do anything we want to with our plant for demonstration purposes.

It's a flexibility that I think is really critical if a training center is going to have an operating treatment plant on site. Obviously, being the state's regulatory agency, we could not be in a position where we might be involved in enforcement action by our own agency.

Out in the registration area, I do have some of our catalogs, and I'd like to invite each of you to take one of these. The catalog goes into a little more detail and description of our facilities. Also, it lists the kinds of classes that we give. Most of our classes are about one week in length, and they're on various aspects of the wastewater treatment process.

At the present time at San Marcos, our operating budget is $120,000 a year. That $120,000 represents the cost of putting on training programs as well as operation of the wastewater treatment plant. About 75 percent of that money, or $90,000, is directly related to the training facilities, and the other $30,000 is for operation of the treatment plant.

To break the operations portion down a little bit--the annual utility bill averages about $7,000 (this is primarily for operating the air compressors and blowers for our activated sludge system); our operator salaries and benefits are about $17,000 a year; and supplies and repairs are about $5,000 a year.

The biggest single item in our budget at San Marcos is of course the salaries of our instructors. We have a full-time staff of five instructors, in addition to our operations people. Salaries with benefits for our instructors are about $78,000 a year.

In order to make these costs reflective of the services received, we've broken it down into dollars-per-trainee day. That's done by multiplying the number of students who come through our Training Center during a given month by the number of days of classes, and then dividing that into our total budget cost for that particluar month.

As an example: In October of 1973, last October, our total attendance at San Marcos was 57. Multiplying 57 by the number of days of classes gives a total of 238 trainee days. Dividing that into our budget for the month of October, our cost-per-trainee day during that month was $42.02. For all of 1974, to date, our operating cost in dollars-per-trainee day has been right at $50.

We feel that $50-per-trainee-day is about our levelling-off point, and that's about what it's going to cost us to operate our Training Center at San Marcos.

The cost in calendar year 1973, per trainee-day, was $94,500--substantially greater than it was in 1974. We reduced our cost-per-trainee day primarily through promotion and public relations. A big part of my job at San Marcos is promotion of our Training Center. I do this by sending out promotional mailers and speaking to groups and being as active as I can in water pollution control activity in California.

By letting people know about the facilities that we have, we are able to increase our attendance to very near the optimum without any additional increase in the total operating budget.

Our 104(g)(1) money set us up and ran us for about two years; and then as planned, Uncle Sam said, OK, that's enough, you've had it. Now is the transition time--take over.

The State Water Resources Control Board considered several alternatives, and I'm happy to say they decided to continue the program. In July of this year, we were added to the State General Fund, which hopefully gives us a certain amount of perpetuity.

When we did become part of the State's General Fund, we were required to start charging a tuition fee. Official state policy required that we recover 20 percent of our operating cost in tuition fees. The tuition fee amounts to $10-per-day-per-student, $50 for a five-day class, which I think is a pretty nominal fee. Most of our students are sent by agencies around the state and they haven't considered the tuition to be excessive.

When we first started charging the tuition, our enrollment dropped significantly. In fact, we had to cancel some classes in July and the first part of August. Since that time, our enrollment has been coming back up, and we're right about to the point now where we were before we started charging the tuition. The imposition of the tuition fee doesn't seem to have had any lasting effect on our attendance.

Just very briefly, I'd like to mention two other programs that we have. One is our mobile laboratory program. We have a 35-foot Dodge van equipped as a mobile water quality laboratory, which we send to all parts of the state to put on four-day seminars in wastewater treatment plant laboratory analyses. The results of the tests are applied to operation of the specific facility where the mobile lab seminar is held.

In addition, I want to mention that we are coordinated with the California Community College System. This allows us to offer college credits for all of our classes. We give two units of college credit for a five-day class. We're able to do that because our concentrated courses give us as many hours of instruction as a full semester, two-hour-a week class would give at a community college.

The units of college credit are in addition to educational points required for mandatory operator certification in California.

The community college that we coordinate with, in return, receives ADA (average daily attendance) money from the State of California for each student who goes through our training center. It's a mutual, beneficial consortium.

Also, they have provided us with a full-time instructor. He works at the Training Center full time, but his salary is paid for by the California Community College System.

It's worked out very well, and I think it's given us a responsive, dynamic program in California, one that we feel is meeting the needs of our trainees.

DR. AGARDY: Thank you, Chuck. Our next speaker is Dr. Robert F. Crabtree from Idaho State University. Dr. Crabtree was introduced to you earlier in the day, so the only comment I'll make regarding his introduction is that, although he is to some of us Dr. Crabtree, he prefers to go under the title of Bob.

DR. CRABTREE: We are funded as a vocational school from appropriated funds from the State of Idaho, prabably one of the first as far as any specific funding that has been directed toward this type of training. We do have a co-funding between vocational money and CETA money.

Now, there has been some concern as to whether CETA money can be used for upgrading or not. I guess that maybe, if you interpret the law--no, that it can't. If you reinterpret the law--yes, it can. I think that the law states that a person must be out of work for 30 days. Most people can be out of work for 30 days and then be referred into a program. If there is a will, there is a way; and I'm going to leave it at that before I go to jail before the afternoon is over.

It can be done, it can be done. We initially began our training efforts through the efforts of MDTA. It was a fantastic experience, and unless any of you have gone through a congressional investigation because of the training that you didn't do, you don't know how to appreciate the program known as MDTA.

We were reasonably successful when we finally got our heads screwed on straight, and for the amount of $104,000, we did train 32 people. Out of those 32 people, there are 26 that are presently employed within the state. Out of the 26, there are 22 who are in a supervisory capacity. We don't feel too shabby about this.

We are at the present time just completing a third go around of 104(g)(1) money on OJT-type training. We do utilize a mobile situation again. We also have capabilities of facilities at the University to provide the training, if that is desired at that entry level.

For state institutions to develop a satisfactory training plan, a number of factors must be available.

Number one. A person or persons who are knowledgeable and can articulate the mission, goals and objectives of the training.

Number two. The resources and technology available and required to achieve the desired objectives.

Number three. An accurate data base that can be collected and utilized, and which can define the direction and boundaries and limits of the training; and at least one person who can identify, analyze and describe the most significant issues or problems that relate to the training need.

In short, the minimum training planning capabilities that must be available to state training centers is the ability to at least identify, define and assign priority to those training requirements absolutely essential to achieve the center's objectives.

For the most part, few local communities have the resources to carry out comprehensive training to their needs in the water pollution control field. However, large cities and a growing number of other urban population centers have initiated modest efforts to carry out metropolitan regional training, and this recent development in the national strategy for improved water quality management offers the state training institution an excellent opportunity to participate with local organizations as a member of the statewide training plan.

Such membership will put the state training agency in direct communication not only with training, but also with those who offer funding and technical assistance, that can be used in planning programs to upgrade workers now on the job, or to train new workers for a future job opening.

Local communities--local communities will probably continue to look to state agencies for programs for training and upgrading of workers now employed in local plants.

Some of the steps to be applied--and there are four of them:

Determine that segment of the water pollution control field for which manpower training is being performed. Then take an inventory of your existing plants, the type of occupation, the existing training opportunities, and then, is there a career ladder?

Number two. Determine the relationship between training and control; the legislative authority; water quality uses and criteria and the budgetary history.

Number three. Determine selected characteristics of current and expected employment or unemployment. I heard on the news this morning that when it comes to unemployment, things aren't nearly as bad as they could be. The commentator who was giving the information - the statistics - said that things weren't at all bad; that he could remember in the Great Depression when a hitchiker didn't care which way he went. We're not quite to that point.

Measuring current employment characteristics; projecting future employment characteristics; additional manpower needs. Analyze manpower problems in recruitment, retention and utilization. Is it necessary to have 15 people in a plant trained as engineers when maybe three of them are doing engineering services?

Develop training plans and action steps in response to current and expected training needs.

Then we ask them just one simple question: Are you willing to appropriate the funds that are necessary to allow us to carry out these training objectives? The answer was affirmative.

I assure you that each one of you have the capability of doing just that. We have been called together as a group of experts. Most of you have your own definition of an expert. Let me give you mine in closing: Experts are those of us who have been called in at the last minute to share the blame.

DR. AGARDY: Thank you, Bob. Our next speaker comes to us from the State of Illinois.

Ernie Bennett is Manager of the Operator Certification Section, Division of Water Pollution Control, Illinois Environmental Protection Agency. Ernie?

MR. BENNETT: Thank you, Frank. I'd like to explode a myth this afternoon.

Section 109(b) provides a quarter-of-a-million dollars to any state for the construction of an operator training center.

Scientific observation--it tain't so.

In 1967, the Illinois State Legislature designated Southern Illinois University as the site for a water operator institute and a wastewater operator institute. Our legislature did not define what they meant by institute, that is, whether an institute is a structure or organization.

However, it did decree one or two advisory committees to the institute, Southern Illinois University. The option was that they could have two six-man advisory committees--one for water and one for wastewater--in each case composed of three operators from the respective fields, plus three university people; or one nine-man advisory committee composed of three wastewater and three water operators and three university people.

It appeared with that action and the subsequent appointment of those committees, that at last the importance of operator training had been recognized and something was going to be done about it. Subsequent appropriation requests were not honored, and so the committees did not become viable; and operator training continued to limp along at a woefully inadequate pace in Illinois.

Approximately 2,000 certified and an unknown number of uncertified wastewater operators in Illinois had to be content with whatever training programs could be developed and carried out by a staff of one or two individuals, supported by whatever volunteer help we could manage to elicit.

Minimal funding from the state level, plus those federal funds which could on occasion be obtained, were inadequate for any program expansion; and while DOL MDTA money, although limited, did permit some training to be carried out at SIU East Campus, in short, there warn't much goin' on.

Then, with the Federal Environmental Protection Act of 1970, new hope arose by virtue of Section 109. Here was a quarter-of-million bucks with which the state could construct a training facility for the training of operators in wastewater treatment facilities.

In Illinois, we explored this avenue, feeling that perhaps now, at last, we were going to be able to do something meaningful. We had a designated school location and it appeared there was some available money.

Once again our hopes were dashed because upon careful inquiries to the Federal Environmental Protection Agency, we learned that the money under Section 109 must come from construction grant funds.

In a state where the applicants for federal state construction grants number in the hundreds, while the number which will receive funding can be counted in the dozens, the only response that we could expect--and, parenthetically, it was the one we got--was, "No way."

Then another possibility presented itself. The citizens of the State of Illinois had voted the State Pollution Control Bond Issue, whose primary purpose was to improve pollution control facilities throughout the state. What better and more appropriate way was there to invest these funds, we felt, than to provide for the training of operators.

Now, it's a pretty generally held concensus that an intelligent, well-trained operator can make even a mediocre plant do a quality job, while the best of plants under an untrained operator's hands may well turn out to be a most unsatisfactory experience.

Furthermore, in Illinois, with far more municipalities seeking funds for the construction of new facilities than there were funds to construct, would it not be possible that in many cases existing facilities would be adequate and new facilities not necessary if trained men were placed in control?

On this basis then, we approached the Governor, asking that he consider the possibility of investing a quarter-of-a-million dollars in state bond monies in the project. We were asked to describe the project more completely and indicate the total necessary resources.

We pointed out at that time that $1.8 million would be necessary, that we'd like to request a minimum of $2 million for capital construction of the project. Governor Dan Walker indicated his approval, and subsequently (to assure the support of the Illinois State Legislature) the Legislature was asked to, and did, appropriate $2 million for construction of what will be known as the Environmental Resources Training Center.

Although initially it will undertake the training of operators of wastewater treatment facilities, the Center can be expected to ultimately undertake the training of operators in many of the other pollution control fields, with the earliest entry probably being public water supply operators.

Interpreting the '67 legislative designation of institute to mean a facility, there was no question that we were going to locate this structure on Southern Illinois University Campus at Edwardsville, Illinois, which is, by the way, in the St. Louis metro area.

There were some added advantages. There was more than sufficient land on the campus for the construction of the facility, allowing it to be separate and away from the main campus, and yet a part of the main campus. There was an existing waste treatment facility, and in addition, it appeared that the marriage might be much smoother in a state-owned, state-controlled facility than to attempt to coordinate and work with a municipally owned facility.

The concept of the Environmental Resources Training Center goes far beyond a training school located somewhere in the state to which operators must go for training. Although direct on-site training will be an important function at the Center, its programs will reach out across the entire State of Illinois through the community college programs already started on 18 community college campuses across the state.

The Center will provide course curriculums, teaching materials, audio-visual model aids, and a continuing pursuit of the present instructor development program to support these local ongoing area programs.

It is expected that, through the cooperative effort of the Environmental Resources Training Center and the community college program, it will be possible to offer a course of study which, although completed at one or more of the community colleges, will conclude with the issuance of a certificate or degree from the Center.

Consideration is also being given to the concept that, upon the completion of the prescribed program of study (including the demonstration of knowledge of each of the courses at the conclusion of that specific course), a certificate of competency might be issued without the present three-hour certification examination. And, with proper administration, I submit it is quite conceivable that such a program might be far more valuable than the present certification process as used by most of us at state government level.

In addition to the training of operators--either directly or indirectly--and the development of training resource materials and curriculum, the unique advantage of a training center such as we are proposing permits research or study into operational problems and their solutions.

Now, it is not intended that the Center should ever enter into the development of new treatment techniques or treatment devices, but much work needs to be done in the area of study and research of operational problems associated with currently used treatment methods, and even in the area of problems with a specific plant or plants.

We also believe that close proximity to a major university, plus its own unique characteristics, will make operational-problem study and research highly feasible. And while not as centrally located in the state as what might be most desirable, the Center will be located in an area of high population density and an area with many, many operational problems. Being on the campus of a major university, the entire facilities of the university are of course available to the Center without, at the same time, destroying the autonomy of the Center itself.

The federal program under Section 109 provides for a quarter-of-a-million dollars for the construction of such a center; and, by virtue of its statement, even implies that this is a hundred percent support and, therefore, a center can be built for that sum.

I submit to you that Illinois is investing $2 million of state bond money in the capital construction of the Center. In addition, Southern Illinois University at Edwardsville itself has already invested a considerable sum in the planning and predesign of the Center. This does not provide for operational money.

I do not feel, nor do those with whom I'm working, feel that this Center is some elaborate, far-out facility. It is, rather, in our opinion, quite conservative and will need further investment before it is complete. Nor does the investment consider all the expenses that will occur as we develop new programs and expand operations.

I make these comments to suggest that, in my opinion, it's unlikely that a feasible training center can be constructed for less than two to three million dollars. While I've been told that others are accomplishing it, I have some reservations as to whether or not they have counted the entire cost or whether or not they are undertaking anything nearly as ambitiously as Illinois Environmental Resources Training Center; or, in fact, whether they are investing enough to do the job that must be done. It is my firm conviction that in the final analysis, pollution control will not be accomplished on the drawing boards of design engineers or the fabricating shops of equipment manufacturers, but in the hands of accomplished, knowledgeable, trained operators.

I believe that Illinois, with its Training Center, represents a giant step forward in the recognition of the important role of operators and their need for comprehensive, viable training programs; and I believe that it further brings to focus that, while many fine ideas begin in Washington and while the federal EPA is sincere in its desire and efforts to help us do the manpower training job, in the final analysis, it's going to be up to you and me to get it done.

I'm not knocking the EPA or any of its people; frankly, I'm more than satisfied with our relations with Washington, with the National Training Center, and particularly with the people in Region V who have been a lot of help to me all along. I have found them helpful and sincere, and I indicate to you that this meeting is an evidence of their sincerity. While they do not have funds, they recognize our needs, and they're trying to find ways to meet them through alternate mechanisms, such as CETA, etc.

But, gentlemen, let me just for a moment crawl up on the soap box and get just a little bit angry. It's up to us in the states. It's up to us to decide that we are no longer going to be placid, simpering table pets waiting for a pat on the head and a few crumbs from our master's plate; but, rather, that we are going to be an angry, snarling pack, baying at the doors of OMB, and snarling at the portals of our state legislatures, frankly raising hell to get the resources that we know we have got to have if we're going to meet manpower needs in environmental control protection.

We are going to have to decide that we are going to dictate training priorities, that we are going to determine resource needs, and that we are going to demand meaningful responses from state and federal levels.

I look forward to sharing with you over the coming years our accomplishments and our failures in Illinois as we move ahead with our Center; and I believe that it will be the most advanced and yet down-to-earth, practical operating training center in the nation, and that it will be a model for the rest of you.

I know some of you go through the frustrations of trying to get funds and trying to accomplish training, as I do. And if you are in the middle of the frustrations as I am, perhaps in closing you'll enjoy this little bit of poetry from Funky Winkerbean. It goes:

Twinkle, twinkle, little Boeing,
How I wonder where you're going,
I wish I were on you tonight,
'Cause I could sure use a champagne flight.

DR. AGARDY: Ernie, that was a very enthusiastic presentation. Our final speaker on the panel comes to us from the State of Maine, and the speaker is Art Baker, who is Director of the New England Regional Wastewater Institute and Department Chairman of Wastewater Treatment Technology, Southern Maine Vocational Technical Institute.

His background is rather diverse. I think that the area that I would like to bring out for you is his certification in the operation of water pollution control plants as well as water and distribution systems, so he comes to us with a strong background for his presentation today.

MR. BAKER: Well, at last. I didn't think I would get here, but you paid my way, so I'm going to stay--and you're going to stay.

I wish to thank EPA for inviting me out here. I wish to thank the EPA from Region I for the help they've given me. I wish to thank all the people in the New England area who have assisted me in my program.

The unique New England Regional Wastewater Institute is an organization that was envisioned by many New England state water pollution control agencies over the past years.

During 1966, the New England Interstate Water Pollution Control Commission (the New England Interstate Water Pollution Control Commission--please remember that) was given the task of establishing a training program for wastewater treatment plant operators and wastewater collection systems personnel in all the New England states.

Now, the New England Interstate Water Pollution Control Commission Executive Committee (the Executive Secretary is Mr. Alfred Peloquin, whom many of you know) proceeded to make plans for in-service short courses as well as year-long entry-level programs which were urgently needed. Several sites were proposed, with the final choice between Bradley Palmer State Park in Topsfield, Massachusetts, and the Southern Maine Vocational Technical Institute in South Portland, Maine.

The SMVTI campus was ultimately selected because of the location, joint utilization of the faculty and facilities, with no large budgetary costs for instructor personnel, construction of dormitories, shops and laboratories at that time.

The New England Regional Wastewater Institute is the end result and entity of the New England Interstate Water Pollution Control Commission. So, we are an interstate school, which differs from the state legislative schools.

The New England Interstate conformed to the good educational practices and standards established by the State of Maine Board of Vocational Education.

I was employed on March 1, 1969, to set up and operate the program. The first class was a pilot program of 12 weeks, commencing April 7, '69 and ending June 27, '69. The pilot program revealed that a regional program of this type could be successfully operated for entry-level personnel. The first full-year class was held September '69 to June '70, and a full-year class has been held each year since.

The New England Regional Wastewater Institute has graduated thus far 141 students--a real small school. The rest of you've been talking millions and billions and hundreds, thousands. We're small. A hundred-and-forty-one students we've graduated, and 101 of those students are employed, for a 71.6 percent employment rate. We work as hard teaching them as we do trying to get them jobs when it's over. This does not include the present class that's in session.

Of the 101 employed, 16 are superintendents and assistants; 73 are chief operators and assistants; and some are lab technicians; some work in the sewer departments; and one has returned as an instructor.

The New England Regional Wastewater Institute has been approved for initial membership and accreditation with New England's Association of Schools and Colleges for a period of five years.

The present financial support for the New England Regional Wastewater Institute through the New England Wastewater Pollution Control Commission is derived from contributions by the six New England states and New York State, as required by interstate law, and by EPA program grants for the remainder of the budget. Grants are funded through Section 106.

The students have been in part funded by federal funds, MDTA and WIN, for those requiring financial assistance. Enrollment is also open to regular, self-supporting students, male and female. This is where we get the majority of our present students. The program is also approved for VA, through the Southern Maine Vocational Technical Institute. Half of my class this year are veterans.

I'd like to add at this point that Mr. Peloquin wanted me to mention this to the Conference (and I join with him)—to see that the efforts and the final results of this Conference be brought to bear pressure upon the Congress--not to trim money from this type of manpower need, but to expand CETA.

Average cost for a self-supporting student in-state is $1,245 to be exact. Out-of-state is $1,545 for the school year '74-'75. The student attends school eight hours a day, five days a week, for 38 weeks, less holidays, for an average of 1,400 hours for this one-year certificate program.

The student is introduced to actual wastewater treatment during his second week of training by actual operation of the wastewater treatment plant under the supervision of instructors.

The student spends four weeks of on-the-job training at various wastewater treatment facilities located in and near the Institute, and rotates between these different wastewater plants during the training period. This gives the student actual training in different types of treatment processes and operation. This is accomplished during his last month of school.

During the school year, the student is presented with the normal, basic subject matter that is found in most trade schools for entry-level-type training for wastewater personnel--and these are all around the country by the dozens. The method of instruction is lectures, audio-visual presentations, laboratory, shop work, guest lectures and field trips.

There are only two instructors in the school - resident instructors - and a part-time secretary. The other instructors are from SMVTI, Southern Maine Vocational Technical Institute, and they are paid only for the hours they actually teach, so we have no large overhead.

The New England Regional Wastewater Institute also operates one-week resident short courses for in-service personnel during the month of June of each year. Ninety-three students have graduated this program so far.

Subjects are varied each year, with the students' requests on a critique shet at the completion of the course. We hand out a critique sheet--what do you want next year, fellows--and they tell us.

During late 1971, the New England Regional Wastewater Institute placed a mobile training facility in operation, a 25-foot modified mobile home, costing $16,555. There's over $14,000 worth of training equipment aboard. It's a library, audio-visual, a complete lab set-up, everything--same thing that's in the classroom.

Initially funded by EPA under two separate grants for two years, the New England Interstate Water Pollution Control Commission now supports and funds this program. We have taken it over.

The mobile training facility was shown at the conference in Atlanta in 1972, if you were there. Two assigned instructors are with the mobile training facility, and upon request, it travels to any wastewater treatment plant in the New England Interstate Compact Area. The mobile training facility has traveled over 45,000 miles, visiting personnel from more than 150 wastewater treatment facilities, and has given partial and upgrading training to over 850 men during the past 40 months, and is utilized for public relations work when not on training assignments.

More than 34,000 visitors have been oriented and briefed by our instructors on these public relations visits. These are high schools, seminars, fairs, career expositions--you name it--the van is there if it's not out training.

The mobile training facility team is closely tied in with the State Water Pollution Control training officials, who are conducting local training seminars in the EPA Field Study Course, Sacramento Course. The mobile training facility supports the local instructors when so requested. It just finished last week in the State of Vermont, and I think this week it's in Rhode Island.

Unique also to the New England Regional Wastewater Institute is the operation of a package wastewater treatment facility and pumping station that are located on campus and connected to the wastewater collection system, so as to treat the waste produced on campus.

The wastewater treatment facility has the proper discharge license, and instructor-operators are also licensed. The wastewater treatment plant and pump station were acquired through a grant from the New England Regional Commission, another organization in the New England area.

This gives the New England Regional Wastewater Institute's student total training. We believe the purpose of the New England Regional Wastewater Institute has borne out the fruits of our labor, with down-to-earth, hands-on training programs with a special emphasis on job placement. The student can continue to receive further training upon graduation by utilizing the Institute's summer short courses for upgrading and assistance of the MTF can be used at the plant should the need arise and he should ask.

DR. AGARDY: Thank you, Art. Now we're ready for some questions.

I think, in summary, if we listen to what the four states' representatives had to say, it is clear that the impetus now is moving toward the state, the justification for these training programs having been fairly well established under previous funding programs, and it becomes somewhat an easier task to go to the State Legislature with the importance of training. And certainly now we have in hand some numbers and some facts and figures based upon the earlier programs with which to make a lucid and real argument for local support of these programs.

We're ready for questions. If you have any, you may address them to the panel as a whole or individuals on the panel. No questions? In which case, I guess we can adjourn. Thank you very much.

RECENT DEVELOPMENTS IN NATIONAL PROJECTS

George L.B. Pratt, Moderator
Office of Education and Manpower Planning - EPA

Francis J. King
Air Pollution Training Institute - EPA

Harold Jeter
National Training Center - EPA

RECENT DEVELOPMENTS IN NATIONAL PROJECTS

GEORGE L.B. PRATT, Panel Moderator

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DR. PRATT: Frank King, who is the Director of the Air Training Institute at Research Triangle Park, has been in education and training in the Navy. He has been President of St. Petersburg Junior College. He's been a professor at the University of Southern California. He helped set up the Environmental Management Institute there.

He has also been in training in local government. He was Assistant City Manager for training for the great City of Miami, so he's been on both sides of the fence and all around it. Frank will talk to us about direct training for State and local government officials conducted by EPA at Research Triangle Park.

MR. KING: Thank you, George.

My career matches George's to some extent but I think there the comparison ends; we're somewhat different in size. He was a high school football coach and so was I a number of years ago and as I look at the size of him now, I only wish that he might have been one of my players. As a matter of fact, I've preceded him all through the years by about 20 years so he could have been one of my players.

I coached a team one year - I won't mention the name of the community because they're trying to live it down - that not only didn't win a game; they didn't score a point all year. Now, looking at George, I could have used him to play one whole side of the line.

I'm still suffering from severe nosebleeds for two days here because in the high altitudes and the rarified air that I've been hearing of 104(g)(1), 600 million, 105, 800 million, 109(b), 68 million. We operate a poor little program, meeting about 30 percent of the need in the air pollution field for a mere million dollars. I hope you'll forgive an urchin up here.

I feel like the poor little kid, you know, with his nose against the window glass of the candy store. I'm looking longingly at all that money that's being spent and we get messages passed out to us that are tapped down the line, and they're tapped on my head. "How can you cut back?" "How can you phase this out?" "What else can you do to reduce what you're now doing?"

If I may, I would like to have a show of hands - and not to include the manpower development officers in the regions - how many people here who have at least one-third or some responsibility for air pollution?

Oh, great. I feel a little more comfortable now. I thought I was sompletely inundated by water and I was completely swimming for three or four days. So, maybe there are a few of you out there that I do have a message for.

We are in the training business and we're trying to meet expressed needs. We would like to be able to do more but there are constraints.

My boss, Jean Schueneman, covered the field so very thoroughly and so well that I would be doing a disservice to Jean if I were to try to illustrate to any greater extent what we have already done. I shall attempt to outline today in a short period of time, and try to make it brief, to indicate to you some of the newer trends, some of the thinking as to what we might best do to serve you.

I would like to take this opportunity, if I may, to recognize the people who have been very, very helpful and made our program as successful as it has been.

First of all, to my boss - Jean Schueneman. Without him, I'm sure we would have been down the tube a long time ago. He truly believes in what he says and that is, he puts his mouth and money and heart right into it; he believes in training.

When he was the Air Pollution Control Officer for the State of Maryland, we enrolled more students from Maryland at the Air Pollution Institute than any other state; so he truly believes in people having the opportunity to receive training.

I should also like to acknowledge the support and goodwill of the Regional Manpower Offices.

Since we do not reach about 20 percent of the training needs, we developed an issue paper whereby we said we could reach about 80 percent of those training needs by doubling our present effort. That is, by doubling just about the amount of money we use and about doubling the staff that we employ. That was a wild dream, I can tell you. And it probably will never materialize. We hope it might but chances are rather slim.

We're hoping we can hold what we now have and expand as best we can through utilizing our facilities and our personnel more effectively.

Back in 1970, when I first came to this program, one of the main courses offered was an introductory course entitled, "Orientation to Air Pollution Control". This was a two-week course. At that time, there was a staff of 27 professionals and 800 students were enrolled each year. Most of those 800 students attending this course were lined up knee deep, months, and actually in some instances, a year in advance wanting to get into the course.

It seems rather ridiculous to send people back to Durham for two weeks merely to sit and listen to instructors talk. Actually, if it is necessary to send anyone to training where they have merely to sit and listen to someone talk, it's a waste of time because that could be taped and sent to students. There should be something more involved than just listening to someone speak.

We have tried to present most of our courses so that there is interaction and interplay, some kind of activity going on, a gave-and-take and some true behavioral objectives.

The orientation course I referred to we now have on tapes. Most of you have it. It's in all of the State and local agencies and in the regional offices; it's now a 15-hour course, consisting of 12 cassette tapes and appropriate manual material. Counting the number of people who send in the test to receive their certification, that course is actually doing more of a service now then when people actually spent their money and two weeks to come to Durham to take the course.

We are continuing to package some of these courses. We hope to do more of this. At one time we had a staff of ten people who did just this. We now have two and they do not have the full capability of producing these programs, so we are going to have to seek out a new way, a new method of doing this, perhaps through contracts.

By the time you get back to your State and local agencies, you should have another packaged course; the one on Special Topics. It is my understanding that it was being mailed out beginning last week. This one will include the special topics of maintenance of air quality standards, significant deterioration, transportation control plans, an odor package and indirect sources, too.

We will have the course #439, "Visible Emissions Evaluation", completely packaged with the accompanying film, and there should be, perhaps, about two or three more packaged courses by the end of this fiscal year.

Our problem is, and this is where I would like to elicit the help of the Manpower Training Offices in the region, if we are to do the kinds of things that we should be doing, of developing the newer courses, getting out on the so-called - forgive me the expression - the cutting edge, we need the time and manpower efforts to develop the courses and to present these courses.

We would like to farm out as many as we can of our repetitive courses. We are thinking, of course, of the Visible Emissions Evaluation Course. We no longer can keep Denny Holzschuh as a permanent one-man air force flying all over the country giving that course. We're hoping that every state and many of the larger localities will have the capability of conducting that course.

We would like also to be able to have the same capability in the local areas for such courses as the "Control of Particulates", the "Control of Gaseous Emissions", "Air Pollution Control Technology" and "Field Enforcement". We already contract out our course, "Combustion Evaluation".

We would like to have you consider ways that you can offer these courses in your own localities. We can provide the course outlines and the agendas and the materials. We would prefer perhaps once or twice to send a faculty member out to help launch the course and then perhaps you, through your own facility and your own capability, can direct that course on your own when you need it in your area.

We would still like to be able to offer a few of these courses - not too many - on a national scale so that if agency personnel are not able to take a course that you offer, and you wouldn't have a sufficient enrollment to conduct that particular course another time of the year, they could come to some national location where the course would be offered.

We would still like to have a national bulletin, a national program of courses that will be offered in the various regions, sponsored by us with your assistance. We would like more, however, to see you develop your own capability to conduct these courses. As we develop new courses and present them a few times, and they become in a sense repetitive, we would like then to be able to farm them out to you.

So, for the rest of this calendar year, I would like to spend quite a bit of my time working with you, the manpower training officers in the regions, and with your state air pollution officers in helping you to develop the capability in your own areas to carry out the kind of program that meets your needs.

I had one more thought to pass on to you because I thought maybe Gary O'Neil, my good colleague from the State of California - there he is - do you have your mountain climbing shoes on, Gary? I don't want you to start climbing up and down my back regarding the WIN program and CETA and many of the other fine programs.

I would like to take just one more minute to tell you that I graduated from college in 1933 and that was back in the height of the Depression. The very first position that I ever had was one that the superintendent of schools arranged for me to have through the State of New York on the first adult education program organized through WPA and at the end of four years' time, that program phased out but it was highly successful. Starting with nothing we ended with 200 teachers and over 2,000 students in five counties in western New York State, and this was done by taking people who had no educational background at all. For example taking a capable seamstress and making her a home ec teacher; unemployed secretaries taught typing and shorthand and laborers were employed as assistant janitors - taking capable people who had not had teacher training, getting them certified. Some of them - it's been 40 years now - have since been successful teachers and have already retired. I believe you have to go out and do the job. It won't come to you and it isn't easy, but these things can be done and CETA can work. I think there ought to be more WPA, PWA, CCC and similar programs. I believe perhaps programs like this are in the offing. There are people who want to work and need to work; they need help to get started again.

DR. PRATT: Thank you very much, Frank.

It can be done. You can be pessimistic or optimistic. You can - some people look at things and see them as stumbling blocks; others use them as stepping stones.

A lot of people say if life presents you with a lemon, you know, find a way to make lemonade out of it.

Harold Jeter is Frank's counterpart in Water Program Direct Training at the National Environmental Research Center at Cincinnati.

Harold went to work in the Public Health Service back in 1949; he went to work as a research bacteriologist, but he has been in training for 20 years and imminently qualified. Harold?

MR. JETER: George, thank you for inviting me to participate in this meeting. I really appreciate a chance to talk with you. I've enjoyed the last couple of days of talking with so many of you that I've seen before.

As a matter of fact, in our capacity of training at Cincinnati at the National Training Center, and its predecessor with other agencies, we've been in existence in training functions since 1948 on a continuous basis.

During that period of time we've never been terribly large but we have had a fair number of students, year in and year out. The last estimate that I've seen was that has been upwards of 50,000 people attended our short courses of one or two weeks' duration over that period of time.

During this week I've seen many familiar faces, people who have attended short courses at Cincinnati, many familiar faces who have - even more closely associated with me - participated as lecturers and as instructors in our short courses that we've conducted; and getting yet a little closer to home, some of you have been my bosses at one time or another so I've got to walk softly here at times.

I know you didn't ask me here to talk about history. You're more interested, I'm sure, in what we're doing now. What's going on now, today, at the National Training Center at Cincinnati.

And perhaps if I can try to look ahead a little bit, what we can guess will be happening in the near future. I think we can recognize, as has been coming out all week, that in the past few years there's been quite a climate of change in our activities. There have been several factors that are implementing these changes.

To cite only a few, we've been talking about Public Law 92-500; we've been talking about permits; we've been talking about manpower studies; we've been talking about effluent monitoring and compliance; and all these things have had and are having a tremendous influence on what we do in a training way.

The manpower studies have been demonstrating the need for the training of literally tens of thousands of people in the many skills involved with waste treatment and with effluent monitoring.

I'm sure you'll recognize that a small unit such as we are at Cincinnati cannot possibly, or the regions working with us - and working with the regions - that we cannot possibly act alone to meet the total training requirement.

Obviously, it's a requirement for a joint effort of some kind. Now, recently, Mr. James Agee, the EPA Assistant Administrator for Water and Hazardous Materials, has called on us to make some shift of approach in the training activities and we've been hearing comments about this one way or another during this week.

One of these directions of shift is the calling on you, the people in the states, to take on an ever-increasing load of the training, develop a self-sufficiency to the fullest possible extent of meeting your own training requirements.

At the same time this is going to leave us with a large role, an increasing role in providing support, providing support through the development and the dissemination of training materials of all kinds, to help you in the states in training your training personnel, to make available to them whatever resources we can to assist you in getting this job done.

At the same time I think you'll recognize with me that when we talk about this we are still ignoring tremendous numbers of people who are deeply involved in pollution control work around the country.

I'm talking about the other Federal agencies. I'm talking about industry. I'm talking about people in the private sector. That there are still tremendous numbers of people in these areas who have to be reached one way or another. So, I think that we will continue to have a rather large role in this training area.

Now, in connection with the permit system and compliance with permits and the effluent monitoring requirements, we are well along the road in planning and developing several short-term training courses for delivery to you in the states for your use in carrying out training activities in the State agencies.

Many of you representing the State agencies have received with a letter from Mr. Agee, or perhaps from your regional administrator, a letter describing efforts in this direction and transmitting a sample copy of a prototype manual - such as the manual I'm holding up - Basic Parameters for Municipal Effluents.

This is a student reference manual; the agency has offered to provide it at no charge to each state, up to 100 copies of the manual, for release and use in the state's training effort.

We have received quite a response from this offer and the printer at present has the order; they have the material under production and we'll be beginning to deliver this to you for your own use within a very, very few weeks. I can't give you an exact date - printers have a way of delivering when they're ready to deliver, as you well know. But, in any case, it is at the printer and will be available shortly.

There is an associated effort, a whole series of courses. This was one of several and there will be other materials and other courses coming along of this type.

There's one, a short, one-day orientation type presentation, which we have entitled, NPDES Compliance Orientation. It's directed at treatment plant operators, city fathers and others who have been asking questions of us, calling on the phone and saying, "When are you going to tell us some more about what this is all about? When are you going to give us something that we can look at or hear or pass around so that others can know what are our responsibilities?"

Unfortunately, a lot of this is not being disseminated into the ranks; we can vouch for this and can document this point by many, many inquiries that have been coming into my office.

There's another course - it will be a one-week short course, another of the effluent monitoring series. It'll take about a week to teach that one also. It's one on analysis of nutrients. There's still another one on Analysis of Metals in the Effluents. There's another one coming along in the program for municipal pretreatment requirements for industrial effluents going into municipal systems.

Now, as for when these will be ready, as I've indicated this one is ready now. We can deliver the one on Orientation now. The one on Nutrients will be ready for our first delivery in April. The one on Industrial Pretreatment Programs will be ready in April. The one on Metals Analysis - June.

So, we are moving along; we are on schedule in terms of what we have committed to ourselves to have ready during the current fiscal year.

In this connection, I think I ought to say that it isn't our group at Cincinnati working alone that's developing this material. Joe Bahnick talked a little bit about this on Monday and he pointed out that a lot of this is in a cooperative way, that we're working with several junior colleges throughout the country. They're making contributions into this; they are making some of the prototype presentations of these courses before they're released for general dissemination. We're working with, I think it's three or four different community colleges right now in this.

One of the things that we found out very quickly is that many of the people who will be doing the self-monitoring procedures are really ill-qualified, ill-prepared to go to work and do many of these laboratory analyses and monitoring tests, so that we've had to back up rather sharply; and, working with one of the community colleges, have been developing a basic lab skills course. They've done paractically all the work on that and are ready to deliver instructional material for basic laboratory skills at this point. I'm speaking of Charles County Community College in La Plata, Maryland.

With reference to the training course manual that we're now preparing to deliver, we're convinced - in our own minds, at least - that just to pass this out for your own use - we think we can help you more if we provide some help for your instructors.

So, in January, beginning next month, we have announced - I think many of you've heard about this - that we will have a ten-day course for instructors from your state staffs who will be carrying on this instruction and work through the course manual, work through the material on our ideas about how to present this instructional material, and for this purpose, there's still another manual that will be used on this one in small quantities available to each state at this time. I've brought with me three or four copies and I've been sneaking them to a few people, but obviously, I couldn't bring enough for everyone so these will be available to you on your specific request.

I might say to any of you who want to get this material from my office, the program of this session I note has the names of all the speakers and I think my name is at the bottom of one of the columns in the speaker's list there. If you'll add to that name and title there in your blue program, just write the zip code 45268, and anything you address me by the zip code and the address in Cincinnati will get to me. Don't worry about street addresses.

This work on these courses, on self-monitoring alone, is causing some dislocation, some disruption in our schedules. The result is that we have had to cancel a few courses and we have been forced to reschedule some others. Accordingly, we are releasing a new schedule of courses for the period January to June and that will be sent out to our full mailing list within the very next few days.

I have brought with me 100 or 150 copies; they're on a table in the outer room for those of you who need this information to carry them with you. In the meantime, we will be sending lead copies of the schedule changes to the regional offices, so we will do everything we can to keep people abreast of any changes in our scheduled activities.

I know that I'm leaving a great many things unanswered. I'll do my best to answer questions as we go along in a little wrap-up session but I think you can see from this that we are deeply engaged in this work and will continue to go on with it as long as we're allowed to.

DR. PRATT: I'd like to add a little footnote to what these gentlemen said. I think I'd be remiss if I don't wind up this little session on EPA conducted direct training by saying that, as you see, we're doing what we can to support you with technical assistance and with training materials for those courses that are amenable to inclusion in a state system.

It is not useful, nor is it good management to ask a state to offer courses when there are only a few people interested, when the course is not required every year and when it requires sophisticated and specialized equipment.

A negative economy of scale exists when nationally you need to train a thousand people, where when you break that down by states and some states do not need a person trained in that particular skill, even every year.

So, I am optimistic about our announcing in the fairly short run, a change in policy on charging tuition to the employees in State and local governments. We expect to be able to exempt those individuals, but we will have a tuition charge for other than state and local government people but that will be an incremental or a marginal cost which will be much lower than what we have been talking about.

MR. SCHUENEMAN: I'd like to emphasize one thing Frank King forgot to mention and that's what we call our Control Agency Fellowships. In the air pollution control field we have the capability to pass out each year about 70 fellowships for full-time, graduate training at universities to State and local agency employees. If you take those fellowships and play them just right, they can be excellent recruiting aids and retention incentives. You can bring a fellow on board with your agency, telling him that if he's a good man, he does his work well and he remains interested, you'll consider him for a year at school with nearly full salary and tuition and fees paid and that he can get himself a master's degree if he'll give you two years' service after he gets back. In this way you get a new employee into a five-year sequence that will probably produce a career employee. And you get a man that's well prepared. We encourage State and local agencies to use those fellowships for all they are worth to retain people and to recruit people.

STATE REACTIONS TO FEDERAL PROGRAM STRATEGIES

Chris Beck, Moderator
Connecticut Department of Environmental Protection

Charles C. Miller
Iowa Department of Environmental Quality

Charles H. Frommer
New York State Department of Environmental Conservation

Robert H. Lounsberry
Iowa Department of Agriculture

William R. Bunner
Ohio Environmental Protection Agency

Edward O. Wagner
New York City Department of Water Resources

John R. Wright
New Mexico Environmental Improvement Agency

STATE REACTIONS

TO FEDERAL PROGRAM STRATEGIES

CHRIS BECK, Panel Moderator

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MR. BECK: Our assignment as a group was to react in part to the sessions that we've heard over the last two days. When our group got together and tried to read some of the feedback that we have been perceiving from the individuals present in the room, we felt that it would be appropriate to get a great deal of your reaction, and that it was also appropriate that we structure our presentation a little bit differently from others, and try to build on one another's comments.

So, we've outlined an approach this morning that, hopefully, will lead us to some sort of conclusion where we can get an overall reaction from the group as to what we've learned. We've broken it up this way. We're going to first try to spell out what the problems are - we've heard a lot of the problems in the first two days, and we've had some people on our panels who were eminently qualified to discuss these problems.

Then, we're going to talk about the utilization of funds, such as CETA, WIN, voc ed, direct training funds, and whether they're really going to solve the problems that we have, based on what we've learned over the last two days. And, as George Pratt, said, if you have a lemon, you can make lemonade. The question is, do you really want lemonade, and that's the question that we're going to be trying to answer today. And finally, we're going to be ending up with where do we go from here? John Wright is going to share that part of the session, and he has some thoughts that he's been able to elicit from people that he's been talking with and members of the Committee, and hopefully, at the conclusion of that, we can get some reactions of people present in the audience - not questions of the panel as much as just statements in terms of position.

I'm going to be presumptuous, and I'm going to take the reactions of the panel and what we've heard through the last couple days that have been transcribed, and try to summarize those comments and transmit those to the policy-makers in EPA, so that at least that's communicated to them.

Our first speaker is Charles Miller. Charlie has a B.S. from Parsons College in math. He also has a B.S. in mechanical engineering. He's going to be talking today on solid waste, water, and air program needs, and whether in fact they're going to be accommodated by these funding programs. Charlie is the acting head of the Land Quality Division for Iowa, and under his purview is the solid waste, hazardous materials, agricultural chemicals, and radiation programs.

MR. MILLER: I get the job of pointing up the problems, so I'm going to point up the problems as I see them, from my point of view, and I'm going to try to explain them. Now, I'm reacting to the panel on Monday, which talked about air, pesticides, solid waste, wastewater and water. But I see the training problems in these areas are all the same. I'm not going to speak to each one. I might use one or two as an example. I think that these problems are (1) recognizing the manpower needs, (2) the type of manpower we need, (3) the private sector, and (4) timing, which is a very important thing.

Now, recognizing the magnitude of the problem. I don't think that we do recognize the magnitude of these problems. For example, we have training courses, we have training programs, and we've trained that vital core of individuals who work for state government. But that's not who is affected mostly by these federal programs. For example, the Construction Grant program. In Iowa, we're spending about $40 million a year in building wastewater treatment facilities. Now, the handful of engineers at the state agency who review and comment, and review the design and encourage the cities to build these facilities, are not really the ones who have to operate them.

So I say the magnitude of the problem then is not these 45 or 50 people we have, but the eight-hundred-and-some wastewater treatment facilities which are becoming increasingly complex because of the federal legislation. We no longer have a lot of little lagoons. We're going to package plants. The old guy who used to sweep the streets and mow the lawn, and who was the street crew guy and then went out and took samples at the lagoon, is no longer capable of operating it. So we're talking about a whole new classification of people.

In recognizing the problem, we've got hazardous waste. This is a new problem on the federal scene, and I don't even have any conception of the magnitude and the type of problem we're going to run into in hazardous waste. I didn't even know there was a hazardous waste problem until we told all these landfill operators they couldn't put anything hazardous in them. So now, every week, people call us up and say, "What are we going to do with 900 gallons of toxaplene?" and I don't even know what toxaplene is. It's not educating me, educating those people out there to the type of product. This is the real thing.

All right, let's take the solid waste landfill operator. Here's a guy who has operated out here for 20 years at this little dump. And do you know what his job has been? He sits in the shade on this chair with this little umbrella over his head, and you drive in with your car full of trash, and he says, "Over there, buddy, over there." Now, we're asking him to run a very sophisticated piece of equipment, a bulldozer, and run a landfill, which will cost you about $3,000 an acre by the time you get the thing approved and in operation. And we're asking this man who has sat there for 20 years underneath the shade tree, who's said, "Over there, buddy," to operate this landfill. We've got a real type of problem here. We're talking about taking a sow's ear and making a silk purse. That's what we're talking about, and I'm not sure we can do that.

Let me ask you this. I don't know how many engineers are in the audience. I'm an engineer - you went through four or eight years of college, and how many companies or state agencies gave you a half-million-dollar piece of equipment to play with, right off? Nobody gives you that kind of responsibility. Well, we're taking this guy with eight weeks of not very intensive training, and we're turning over to him a million-dollar operation, and saying, "Go! It's yours." I don't think we're coming to grips with the type of problem.

I can take that back to water treatment if you want to. We've got the guy out here who ran the lagoon for 20 years, and we put in a sophisticated package plant, and say, "Run your own laboratory, friend. Here's your plant," and he looks at you with sad eyes and says, "Huh?" He says, "What are you talking about, man?" "And if you don't run it right, since we've got you on a compliance monitoring program, we're going to come back and nail you if you don't have your effluent just right." You know, he's not too excitied about that at a $600-a-month salary, and I don't blame him.

OK. Now, I want to bring up the next point. This is the private sector. We here - we're always concerned about the public employee, right? We've got to worry about that private sector, too. Now, let me give you just a little example.

We've got this National Discharge Permit System, and we've issued all these permits in Iowa, and we've finally got some certified operators in the municipal facilities, and all the industries are assigned their permits and are happy with them and everything, but starting in January, we're going around and start monitoring these guys. Here's industry over here on the river, and we go around and monitor him, and he is in violation, so he gets to go around with us for a while. And after he goes around with us for a while and we look at his process and everything, we say, "Sir, your problem is you don't know how to run it." And he goes, "That's right, I don't know how to run it." "Now, what you need to do," we say to him, "is take your man and train him in this facility to do this."

Now, you know, his factory is in this town, and there's a guy over here that's running a municipal treatment plant that's been through all the EPA and state training, and he isn't making very much money, and he isn't getting into trouble with us because he knows what he's got going. Well, it doesn't take this industrial man very long to realize it might be cheaper to hire that guy than to train his own. So, all of a sudden, we lost another operator out of the public sector, and he goes into the private sector. So, that is a very big problem, and we're going to have more and more of that when we get to hazardous waste and we increase this water pollution control program.

My last point here is timing. I think timing in this training business is absolutely critical. Now, I'm going to give you an example here, and this was brought home to me Monday. We have to certify and train pesticide applicators. Okay, we have two categories: general use and restricted pesticides operators. We have to have this program operating by, I think it's July of '76. What's a restricted-use pesticide? I don't know. But we have a restricted-use pesticide, and we're going to have to have people trained and certified to apply it. Now, are we talking about the handful of private applicators, like Orkin and so on? Or, are we talking about 132,610 farmers, individually owned farms in Iowa?

Now, ladies and gentlemen, do you realize the difference in magnitude of 1,000 private applicators to 132,000 farmers? There's a little difference in the area of training that we're going to have to apply, and we're going to have to go to the state legislature and say, "We need a little money to put on a training program." They're going to say, "How big is that training program?" "Well, we don't know. It's liable to be anywhere from 1,000 people to 132,610." And I'm afraid, gentlemen, that they're going to look at us with a little bit of doubt as to whether we know what we're talking about. And the answer is, we don't.

I want to talk a little bit about state legislatures anyway. We operate on a biannual budget, every two years. We're going in right now for our next two-year budget. And these guys--you think you've got trouble getting federal legislation--these guys like to have us come before them a couple of times, so that they're sure we know what we're talking about; but no, we've got to come in every two years with a crash program, and that makes it a little difficult. And again they look at us, and they don't argue the need of the program, but they look out there and say, "We had a dry August, and our corn crop's dead." And, boy, it's hard to fight that. You know, logic doesn't really fit.

So I want to sum it up saying that what we've got to look at in training is recognizing the magnitude of the problem, the type of the problem we're dealing with, the private sector, and timing, and I think the federal government should take the lead in this.

MR. BECK: You certainly hit some of the key issues right on the head. Our next speaker is Charlie Frommer. He's a career employee with the New York State Department of Conservation and Environmental Protection. He's been in the Conservation Department long before it became the overall organization. In 1968, he took over responsibility as Superintendent of the Bureau of Forestry and Insects and Disease Control.

One of the things that he says on his biographical statement - one of his chief responsibilities in that position - was to take care of the gypsy moth, and I think that I might just digress for a second to tell you a little bit about the gypsy moth, for you people who aren't from the East Coast. The gypsy moth has been something that's been plaguing two states, mainly New York and Connecticut, for the last two years. It manages to take away our Fall, because it defoliates all of our trees, and it's probably one of the most emotional issues that we've had to deal with in the environmental area for some time.

I'm kind of an optimist, and I think it's been a good program. I used to be director of air pollution when we had a big gypsy moth problem several years ago, and the gypsy moth problem really solved my open burning problem of leaves in the fall. I was kind of sorry that Charlie and my director of pesticides ended up killing all of those gypsy moths, because the open burning problem came back.

At any rate - maybe they'll come back sometime in the future - Charlie is presently, and has been since 1970, head of the pesticide program for the State of New York, and he's had a very progressive program there. One of the things that we thought was important in terms of just redefining our needs was to highlight in a little bit greater detail some of the problems with the pesticide law, because we see that as a major manpower training problem we're going to be facing in the environmental area.

MR. FROMMER: Thank you, Chris. One of the things that Chris did not add to that remark about the gypsy moth program--he did mention that it was a very highly emotional issue in the Northeast--was that when I started working in the pesticide unit, before it became a bureau, I began getting a pretty good feeling for what I was getting myself into. Everyone that I talked to said, "If you take that job, you're crazy." When the Commissioner finally came to me and said, "Would you take that job?" I said, "Does the gypsy moth program go along with it?" He said, "No." I said, "I'll take it."

I would like to delve a little bit deeper into the pesticide program as it relates to manpower training. Pesticides is a very new program; I think most of you here probably do not have a realization of what the states are getting into and the numbers of people that must be dealt with.

I think Charlie Miller, in the last presentation, made reference to it and the numbers that he's quoting might not be that far off--132,610, was it, Charlie?

MR. MILLER: That's right.

MR. FROMMER: That might not be such an out-of-the-ballpark figure. In New York, as Charlie mentioned, we will be certifying two different groups of pesticide applicators, commercial and private. These group breakdowns are based on federal legislation. The first group is the commercial pesticide applicators. These are the exterminators, the tree-sprayers, the nurserymen, the people who, as a rule of thumb, apply a pesticide for hire on someone else's property. We, in turn, are saying that anyone in a supervisory position within these groups must be certified. We, at the present time, have a business registration program, whereby companies register with us as pesticide applicators, and, at the present time, we register nearly 5,000 businesses. We feel that there will be an average of two people certified per company, which means we will have to certify 10,000 commercial applicators in the State of New York.

To make matters worse, these commercial applicators are broken down into ten separate categories because there is such a wide range of pesticide applications, and such differences between a person doing say structural pest control work and another man doing aerial application work. For training and examination purposes they must be broken down into separate categories, and we feel in New York that even the current breakdown isn't sufficient. We have developed over 20 subcategories which further break down the initial ten categories.

In the private application field, we are now basing our estimates on the Restricted Pesticide Law that we have in New York State at the present time. Federal law says that any private applicator or farmer who is applying a restricted pesticide must be certified. We are assuming--and this might be a wild assumption--that the federal restricted-pesticide list, when it is promulgated in 1976, will approximate the one that we have been working with in New York since 1971. Based on this, we feel that all of the farmers in New York State, with the exception of the dairy farmers, will have to be certified, because they will in one way or another be using a restricted pesticide.

This means that somewhere in the vicinity of 25,000 farmers are going to have to be certified in the State of New York. If the federal restricted-pesticide list is longer than we expect and contains any pesticides that are used by dairy farmers, then we can add another 25-or-30,000 farmers to that list, bringing it up to about 55,000.

The figures are overwhelming. Where do you start with a program of this type? We have made arrangements in New York with the State Cooperative Extension Director for him and his staff to handle all of the training aspects of the program with the exception of the City of New York. We expect the City Health Department to handle training there. Cooperative Extension will handle the training aspects, and the Department of Environmental Conservation will handle all of the regulatory aspects.

We are treating this program as probably the finest opportunity that we have ever had in the past, and probably will ever have in the future - at least in the foreseeable future - to train. Training, we feel, is the foundation of the whole program. Certification is a piece of paper that is issued to a person saying that he has successfully passed an examination. By itself, it is nothing more than a piece of paper. It's what went into getting that piece of paper that really counts. On top of that, a point that I think has been missed completely by those who have spoken to you in regard to pesticides, is not so much what went into getting the piece of paper, but what is going to have to go into keeping that piece of paper. We are planning an annual training session being offered to all of these certified applicators. In addition, we plan to recertify all of the commercial applicators once every five years, and all of the private applicators once every six years. This will be another certification program all over again.

As you heard, I think on Monday, the hoped-for plan is 40 hours of training for the commercial applicators, eight hours of training for the private applicators. This is being presented to us as a goal on one hand, and on the other hand, we are being told that training funds are running out, but everything must be completed by October of 1976. Here we sit as states, starting from scratch, and stuck in the middle between what we feel are unrealistic goals in a very short time span on one hand, and a lack of the tools to do the job on the other.

Presently, we have a CETA plan drawn up in the sum of $100,000 to train those whom we consider to be the untrainables, those people who cannot, for one reason or another, pass the examination. There are those people who tighten up at the thought of an examination and could not pass one if their lives depended on it. There are also those others in New York who have a language barrier based on an ethnic background or lack of education. The $100,000, if approved, will be used to train these people.

In addition, we will be charging fees to try to offset our costs, but believe me, it is extremely difficult to go to a farmer and say that he has to pay a fee to take a training course so that he can take an examination to do something that he has been successfully doing for the last 20 years. It is very, very difficult to convince these people that this is a program that is in their best interests, and for which they should pay a fee.

But considering the fact that we have a Bob Knox in the regional training office here in New York, whom we have a considerable amount of faith in, and a Dan Campbell in our own office, who is a real training pro, we feel that we will be able to get through this one way or another. As George Pratt said, "If we are handed a lemon, use it to make lemonade." It is extremely difficult, however, to make that lemonade with your hands tied behind your back. I think that if we had our hands untied and some of these constraints taken off, we would make all the lemonade people would need.

MR. BECK: You know our next speaker. I've heard an awful lot about him in my career as Environmental Commissioner, but I really didn't know quite how impressive a career this gentleman has had. Bob Lounsberry has been for the last several years Secretary of the Department of Agriculture for Iowa. Of course, In Iowa you have to run for reelection, and he put together - at least his organization put together - a little profile of this gentleman.

It starts off a few years ago when he was back in high-school and college, when he was a scholar. He had many varsity letters; he was Who's Who in America; he went from college into the Army--in the Air Force, and he won many distinguished awards there - the Distinguished Flying Cross, the Air Medal, the Four-Leaf Cluster. He went on to be a farmer for many years, and while he was farming, he just didn't do that--he was a member of about 60 different organizations where he played an active role, public service, in part. He was in everything from the PTA to the Story County Pork Producing Association. In November of '72, he took over responsibilities as Secretary for the Department of Agriculture. Any of us who have known how much that organization has progressed in the last few years know it's to a great extent because of this gentleman, and he's done an awful lot to reorganize that Department. But, I think the most outstanding achievement that he's been able to do in all of his career is as a Republican in this last election to get reelected. Bob Lounsberry.

MR. LOUNSBERRY: Thank you very much, Chris. Ladies and gentlemen, after hearing the two Charlies precede me, I was reminded of a story about the son who came down to his mother's breakfast table and said, "I'm not going to school today." She looked at him and said, "Just what brings this on, son?" He said, "The kids don't like me, the teachers don't like me, the superintendent's trying to transfer me, the bus drivers hate me, the school board's trying to get me to drop out. Even the custodians have it in for me. Naw, I'm not going to school today." She said, "Son, this is ridiculous. You're healthy, you've got a lot to learn, you have something to offer others, you're a leader. Besides that, you're 45 years old and the principal."

I would like to make just a few general remarks to this title that we were assigned, "State Reactions to Federal Program Strategies." I think all of you are aware that in nearly every state in the Union, the Department of Agriculture has numerous cooperative relationships with federal agencies, particularly with USDA, FDA, and EPA. Because, you know, in nearly every state, regulatory duties have become greater and greater and greater with the passing of time; and in our state, since the Department of Agriculture was created as a separate division of government a little over 51 years ago, we have mushroomed to 27 different separate divisions, which I've attempted to group under three major categories providing a little better opportunity to keep up on things by having an administrative assistant in charge.

Our five big regulatory divisions embody a number of inspectors operating out of their own territory in the state. Associated with these controlling functions is an extensive chemical laboratory which runs analyses on samples of products more or less on a monitoring basis until it approaches the action level. And, like most other states, we have been concerned since the passage of the Environmental Pesticide Control Act in October 1972, first to get legislation in our own state, giving the authority, and in this case the authority was granted through legislation in the last General Assembly to the Department of Agriculture for implementing the Federal Environmental Pesticide Control Act.

I was assigned to talk mostly about CETA because we've been encouraged through our Region VII to seek CETA funds for training programs. I want to make these few observations about the CETA program. You know, we spent a considerable amount of time earlier this summer attempting to pry loose some CETA funds to take care of at least part of the training resource and demand. MDTA funds and others have been incorporated into the CETA program, so we were turning to CETA, Titles I, II, and not very probably, III. But, of course, I, II, and III have potential there.

First of all, the limitations of the CETA program. CETA doesn't meet all the direct state environmental agency's needs. That's the understatement of the year. CETA's prime sponsors won't automatically, or even after serious effort, provide funds for environmental needs. CETA provides only services and programs for the CETA-eligible persons. These are limitations. There are about nine that I jotted down here. A large amount of CETA funds was effectively precommitted to programs, agencies, and contractors that have received funds through programs for which CETA is a successor legislation.

Membership on the state CETA council basically only includes persons who represent the traditionally labor-funded community, and therefore only primarily considers plans and proposals of this particular group. Environmental agencies are not members of this group. CETA was designed for relatively good economic times, and obviously, the current unemployment rate does not represent good economic times or conditions. You have to be willing to commit a significant amount of time and effort to plan and make the contacts necessary to get some of the CETA funds. The Department of Labor and the state CETA staff generally view environmental agency needs as low priority, if they have any serious interest in them at all.

There is no one way to get and use CETA funds, and I'm sure we're all aware of this. CETA funds are gotten state by state and program by program, and certainly you have to develop your own strategy, and it's obvious that you have to pursue the political route to even get any consideration. We haven't been able to pursue the right route yet, but having come down here and talking to some of these other fellows and seeing where some of them - like Connecticut - have been successful, I'm going back with a new vigor and try to get a bigger club and go to the right person, I guess.

I would like to say, though, that of the benefits, I have three here. It can pay for public jobs in the environmental field, using Titles I, II, or III. Funds can provide training and employment at entry level for public jobs, and because CETA decisions for funding and programs are made at the state and local levels, in the long run, a more direct relationship can be established at the state level, and hopefully future funding could be more uniform than it was when you had to deal with only the federal agency.

Now, I think my time is about up, but I would like to say in conclusion that I feel, in our state at least, federal-state relations have been for the most part good. The only handicap that I see in our state is the fact that nearly all of my predecessors shied completely away from anything that looked like it was federal. They've been extremely conservative people, and it's been a little difficult to open up communications lines in some areas. We do appreciate the cooperation we've received and certainly intend to reciprocate. Many of the problems we've experienced have not necessarily been the result of federal people.

The immediate past and current federal administration seems determined to shift more and more of the existing programs to the state shoulder, and certainly this approach can be a good approach, because the states do have individually geographical, sociological, and economic problems, and can respond more meaningfully to the regional approach as opposed to the monolithic national policy.

I realize that if Iowa or any other state is going to share in the authority, we must also share in the funding. To be consistent, though, I do think that this thought ought to also be endorsed by the federal government. And if EPA's going to have a hand in the game and make it a rule, so to speak, make it a rule that they've got to play the game, you know. For example, if they are going to have a hand in the game--and they certainly do--then I think that they should lean heavily toward, at least, a proportionate share of the funding for the programs.

MR. BECK: Today now, we've heard three people speak. The first two talked in summarizing, essentially, the needs that we have in the environmental program. Bob, of course, just addressed the relationship of CETA to solving some of those needs. Our next speaker is going to talk a little bit about how direct funding has in the past - or direct training has in the past - served some of our needs, and we'll talk about what the likelihood of that direct funding solving some of those needs will be in the future.

Bill Bunner is a graduate of Ohio State University, with a B.S. in Biology Education and a Masters in General Special Education. Bill presently is with the Ohio State Environmental Protection Agency heading up their Manpower, Training and Library Services.

MR. BUNNER: I would like to take ten minutes to respond to the information that was presented on the subject of direct training. One of the things that I have noticed in particular are the differences between the various states. It is absolutely amazing how each state perceives USEPA differently. You talk to one state and they don't have much regard for USEPA, and you talk to another state and they say they're the greatest.

I also notice a striking difference in each state's capability of developing their own resources. For the past two years, the Manpower Development Branch of Region V has been telling us that their strategy is for each state to develop its own training capability. Ohio has worked along these lines, and we have had excellent support, not only from the Region V Manpower Development Branch, but also from Research Triangle Park, Taft Center, Ridge Road, pesticides offices, radioactivity offices, the N.E.R.C. in New Jersey for spills, and any other office we've contacted to help us develop training capabilities.

We've had excellent cooperation, and our approach in Ohio has been to assess the training needs, implement training that is actually needed, and to evaluate the results. Since we have a consolidated agency for air, water and solid waste, we have been able to work in all three of these areas, and we learned immediately that you don't work with each categorical area in the same way.

Air - we have local air agencies in Ohio to which we delegate authority.

Water/Wastewater - there's not much of a union of the people there. In so far as training is concerned, you have to work with almost every municipality and every county separately.

Solid Waste Disposal - is almost entirely in the hands of private concerns, so you have to work with people in a different manner in terms of the training that is needed.

Once we have assessed the training needs in these three different areas, both inside the state agency and out, then we begin to identify the resources that are available and to prioritize them. You can use regular university courses to a certain extent, but certainly not on a statewide basis.

We have regularly sent people to USEPA courses; we have synthesized our own courses with our training staff; we have had USEPA bring courses into Ohio, which we very studiously watched and then attempted to replicate ourselves, and we've asked universities to do the same thing.

I would like to point out the fact that the different states do not have the same capabilities. Some states have consolidated environmental agencies, and others may have air in one separate agency, water in another, and so forth, and the ability of the various states to develop their own training capabilities is not really very far along; we're in an embryonic stage.

There are four points that I want to make that relate to principles of management:

1. Consistency - I think USEPA should decide on training policies for a reasonable period of time, and then stick to those training policies. An example would be fee waivers. At first you have them, then you don't, and then you do again. Course locations are the same, either you're going to bring them out to the states, or you're not going to bring them out to the states. If USEPA is going to go with self-instructional materials, that's fine; but I would like to see them stick to one policy along these lines.

2. Communications - I think the states should, at this point, demand to be heard with regard to the fact that they have a need for developing capability in direct training assistance.

3. Basic Development Support - I have a defininte feeling that the planned technical assistance mentioned this morning, "to go to the states and help them develop their own capability," sounded good; but I am relatively certain that there is a serious lack in terms of USEPA staff and funds needed to really help the states develop this capability.

In management terms, the growth and development of your workers is a continuous, ongoing thing. You don't say, "We've got them all trained. Our staff is all set so we can slack off." No, we're developing thousands of new toxic wastes and pesticides and the residues have to be handled and dealt with; so the needs go on and continue increasing, but the training support from USEPA is definitely receding.

4. Responsibility for Initial Development of Training - Since USEPA is in the business of doing research and enforcing environmental laws, they are really the only entity that's in a position to effectively develop the new training courses that are required to meet new needs.

The universities simply are not in the "swim of things" as far as really being able to stay current. Only an operating agency can effectively keep abreast of field operations and related training.

When we demonstrate to the people in our states the fact that we're lacking training, that we don't always know what to do, we are also demonstrating poor management. If we have a spill, for example, and we rush out and discover that it is radioactive material, we may have to say that we don't know what to do with it, that we haven't been trained sufficiently. At that point we can be accused of being poor managers also, because we are not adequately trained.

MR. BECK: In introducing our next speaker, it reminds me of the apostle story of the fellow who always complained about having no shoes until he met a man who had no feet. Sometimes, I think I take a lot of crap, but here's a guy who takes 1.1 billion gallons of it a day. He operates 14 treatment plants, five sludge vessels, 80 sanitary and storm water pumping stations, 68 miles of intercepter sewers, and 300 combined sewer overflow regulators. He's been with the City of New York for 13 years, and is presently in charge of that very, very awesome responsibility. Ed Wagner is going to be talking to us about the potential uses of vocational education in solving some of our problems.

MR. WAGNER: Good morning. I feel it's a special privilege to speak at this Conference because, as one of the few operators here, I'm pleased to be able to give my reactions to federal program strategies since I'm on the ultimate receiving end of both the manpower strategies and the pollution control strategies. There seems to be a contradiction between the two.

Pollution control strategies have been determined by the legislation of recent years, and EPA has been charged with implementing this legislation within very short periods of time. The Water Pollution Control Act Amendments of 1972, for example, spell out an extremely difficult objective to be achieved by 1977, and through a construction grant program providing 90 percent federal money, has compressed a generation of construction into a few short years. Three billion dollars a year of categorical federal money, and we in New York are trying to get that increased to the full authorized amount, is being funneled through a centralized program to achieve uniform nationwide standards providing little flexibility for local conditions.

And yet we've heard here that manpower strategies are to be decentralized, and that federal money is no longer available specifically for federally mandated programs. It's all in the revenue-sharing pot, and we must compete with local priorities for human development needs. We hear that states and localities are responsible for education. We've heard that the 104 programs, the only ones that have had a significant impact on water pollution control--in New York anyway--are to be phased out. We are advised that in order not to become old dogs, new tricks are to be learned to be played with local and state planning and educational councils, to convince the entrenched groups to divert money from established programs into developing manpower to achieve the federal pollution control program.

I have been asked to give special attention in my comments to how vocational educational funds can be used for manpower development for environmental needs. It appears that these funds have the most potential to provide upgrading training, which appears to be by overwhelming concensus here the greatest need.

EPA's own figures show that five-sixths of the total training need is for upgrading. New York City's experience is the same. Right now, I have 1,100 employees, and each could be said to be responsible for a million-dollars-worth of plant. In the next few years, I'll have to operate facilities with triple the present value, more sophisticated equipment, and under stricter demands for operation and maintenance. Some new employees will come, but few can be without some skills. There just isn't enough time, and it will be the present operators and supervisors who will determine whether the improved facilities will be operated to their design potential. These employees cannot provide the federally mandated requirements unless they are given the needed training and support.

After direct assistance from EPA ends, it seems to me that, of the alternate resources presented, vocational education programs seem to have the most promise. Present workers are not disadvantaged; they're not unemployed or underemployed; and vocational education support is not limited to those groups.

Secondary vocational schools and community colleges provide a broad range of levels to fit the particular groups within an organization needing training. Instructors are available, although in my experience operators trained to teach are far superior than teachers trained to operate.

The facilities available are widespread throughout the state, and more and more are freed up with the declining school enrollment. Support educational programs and facilities are readily available and often basic curricula, such as for mathematics, may be adapted easily. Evening instruction, when the schools are less used, fits in well with training employed operators.

Vocational education funds can also be used for training or preparing new entries through cooperative and work-study programs, allowing possible direct entry after graduation from special high-school or community college programs.

However, the question is can the present vocational education resources meet the need for environmental training? It appears to me that there just aren't enough funds, at least not enough federal funds. We've learned that under Part B, for Basic Grants, $420 million is provided for an extremely broad range of programs. If we use that figure of one percent of facility cost to be provided for training, one percent of three billion, or thirty million, would amount to more than seven percent, and that's for wastewater treatment plant operators alone.

But we've also heard that the federal share of vocational education programs is to be only about one-sixth or one-fifth of the total, and will the states and localities furnish the rest?

Another problem with using this route is the long lead time required to develop programs, because of the built-in school-year cycle in academic planning. Needed flexibility may be impossible because of low limits on class size, and educators who think in terms of semesters may have trouble coping with short course formats. For upgrading, it has been seen that the most immediate, widespread, and substantial overall impact is achieved through specialized short courses training large numbers. Another concern of mine is that the control of the program may be lost since the instructors work for the school or college and not the environmental agency.

Certainly, vocational programs do not answer the need for training professionals and cannot substitute for the highly specialized and direct training now provided by EPA. Some have found that the most effective route to obtain vocational education funds is a direct approach to individual colleges and school boards which are looking for business. But while effective in the long run, this method precludes proper attention to environmental needs by those who do the planning and set the priorities. On the balance, therefore, vocational education, while unable to provide the scope, depth and flexibility now possible with direct EPA training programs, may be all there will be in the future to upgrade employees in the existing systems. Having learned the new tricks, we'll also have to live with the scraps.

MR. BECK: All right, we've finished the two major sections of our presentation today, and the first, of course, was the need. The second was then summarizing what CETA, voc ed and direct training seems to be doing to fulfill those needs.

I think the last question to be answered, and the last thing that we need to discuss before we open up for the group's reaction, is: Where do we go from here? John Wright has that assignment. Of course, you've all met John. He's been before you several times in the sessions already. He's a native Hoosier. He has a Bachelor's in Civil Engineering. He has a Master's in Civil Engineering from the University of Indiana. He is presently, and has been since 1965, the State Water Pollution Control Administrator for New Mexico. He's been very active in EPA on technical advisory groups in the wastewater area, and he has been a very strong influence in trying to direct EPA into assuring that the necessary support and resources are forthcoming so that the states can fulfill their mandates. John?

MR. WRIGHT: Where do we go from here? I think we understand that this is an Environmental Manpower Planning Conference, and I take that to mean that we are here to consider the various alternatives available to meet the environmental manpower needs of this nation in the short-run and the near future.

We are not here to solve the economic problems of the world, to direct the direction of the Comprehensive Employment and Training Act, or to solve the poverty problem. We must, of course, consider these and other influences when we make any decisions on what path to take.

We've been here for two days, listening to success stories and complaints. We've heard from 24 federal employees from EPA, the Department of Labor, and HEW on what laws and what programs could be used to effectively control environmental manpower problems. We have heard from 22 state and local employees and four contractor-types--for lack of a better definition--awesome success stories, and their experience in the efforts necessary to make these programs work to cover the needs of their particular areas. We know that some important programs are being considered to be phased out, and that some new ideas are on the horizon.

Management decisions of OMB and others have been criticized, and they've been discussed in the reality of the political scene. I've heard that there are some 384 sources of federal funds that could be impacted upon the environmental manpower needs. Sounds like a helluva mish-mash to figure out where to go from here, but I'll give it a try.

We'll discuss these points that I've heard from what I think are least important to what I think most important.

One. Would EPA please publish a list of conferees who were here at this meeting? Include their names, their addresses, their titles, their agency affiliation and their responsibility and make that list available to every participant.

Two. EPA Regional Manpower Development Officers should research those 384 sources of funds and give EPA line administrators, state administrators, and local environmental administrators and labor agents a realistic probability of success of obtaining funding for various programs.

Three. The Environmental Protection Agency Water Strategy Paper, page 45, covers many points that have been discussed at this meeting. It is the EPA strategy to help state and local agencies to assess the needs, and EPA's responsibility to compile the nationwide needs, fund state training programs, and carry forward with construction of state training facilities, under 109(b).

Joe Bahnick has done the Water Quality Manpower Inventory. Now, Schueneman, Whittemore, McElwee, Warren - please get on with it. Give us the air, pesticide, solid waste, and water supply manpower needs of the nation, and don't complain about the crystal ball not being perfect. Use your judgment and at least put on the line how much manpower is needed--to figure out how much manpower is needed!

Four. Continue the EPA direct training programs that are operable and maintain efforts to hold OMB back on the phase-down of efforts in this area.

Five. EPA must reevaluate the phase-out of the graduate fellowship program. I daresay many in this room would raise their hands if asked if they got a Public Health Service Fellowship to attend graduate school. How many here have received fellowships from either PHS or EPA for graduate school training? The coming of the Federal Drinking Water Standards will increase the demand for combat-ready environmental managers and environmental operating personnel who can't afford to drop this program.

Six. Robert G. Ryan, EPA Office of Legislation, must work diligently to represent the needs of EPA line administrators, state administrators, construction, enforcement and service programs and their interface with educational and training institutions of this nation, in order to continue to be able to answer Congressional inquiries, and be an effective lobbyist for the environmental movement. Jean Schueneman and Joe Bahnick, et cetera, should be close to the Office of Legislation in order that realistic testimony can be based on experience and judgment from years of fighting the battle of environmental pollution, on up the ladder of EPA activities.

Seven. We've heard legitimate criticism of OMB decisions to require tuition payments for direct training and later decisions to waiver those requirements, and the effect that these management decisions had on interfacing with state budget cycles--the ping-pong problem. EPA personnel must enter the Washington scene as full-fledged bureaucrats and make sure that upper management decisions are based on knowledge and understanding of the consequence of those decisions.

Eight. A request that EPA muster all the moxie available to assure that any intergovernmental memorandums of agreement with the Department of Labor include the environmental programs of this nation--that's state, Federal, or local--as priority programs for the use of manpower funds, because of the social good of setting such a priority and the potential reality of environmental jobs being available. This is a marriage license of John Ropes' proposed marriage between EPA and DOL.

Nine. Now, for the rest of us. We must all understand that manpower, ready to do a job, is not a two-week course, not a short-time, sometime thing. We've got to include that consideration. Development of manpower is a continuing effort and must interface into all phases of our planning efforts.

Ten. In the short run, CETA seems to be the big money program. Let us realize that the Department of Labor, the Governor's Comprehensive Manpower Planning Council have the ball. Environmental types had better learn damned fast how to say, "Yes, suh, boss. When, where and how much?" So, realistically, the human resource people want to provide employment to the unemployed and put people to work, and the environmentalist types have jobs and a job to be done, but we must learn to compromise and learn new tricks and hustle the banker.

Eleven. What can be done with CETA? If it is a comprehensive employment and training act, then it's got to be comprehensive and train, and it should effectively cover upgrade training for training's sake. It should address the goal of improved skills for a better, more productive labor force. Upgraded employees, in many cases, leave vacancies for entry-level persons of the unemployed classes. When we leave this Conference, you should hustle your state Comprehensive Manpower Planning Councils and governors for short-run solutions, and we should seriously consider the bandwagon approach to CETA, and maybe request our Congressional delegation, when the upcoming amendments for CETA are considered, that environmental manpower be a priority item directly considered in the Act, and that upgrade training certainly have an equal stature with entry-level training.

Twelve. An additional resource to be considered over the long haul - two to five years - is vocational educational training. We must seriously consider the vocational educational training as a reasonable, permanent place for technical and operational manpower development.

Thirteen. We have heard the comment several times - don't settle for the crumbs of federal agencies - made by the speakers at this meeting. I hope that no one leaves this Conference and falls into the lethargy of our respective jobs. We must realize that the public is relying upon a professional environmental employee to present environmental problems to public decision-making bodies in the administrative arm of government. Please carry your individual manpower needs to your governor, state legislature and Congressman. Make reasonable proposals to meet your needs, and then hustle the political scene with all the moxie you can muster.

Finally, joint action. Fred Bolton and Richard Bruner, as well as others, have alerted this Conference with the real possibility of accelerated public works funds and/or increased service job funds under Title II of CETA, if the unemployment conditions in the country continue. We should decide on a contingency for any task forces of environmental or labor types to look at the possibility of this action and what action needs to be taken.

Now, I'd like to read a prepared statement, and let the record show that it indicates the essence of this Conference: It is time for environmental management agencies at the state and local levels to break down the technical barrier built up as a result of the holier-than-thou attitude that has precluded the engaging in the management, planning and political activities necessary to utilize human resource development programs for environmental manpower training. And it is time for the human resource and development agencies at all levels of government to realize that environmental protection programs are vitally important to our nation, and provide a significant number of public service employment opportunities, or get off your high horses and get on with it, boys.

MR. BECK: I think it's appropriate that I just tell you a little bit about what I did to this panel yesterday. Most of them had prepared texts that they were going to give to this session - long before they came to it. Obviously, because of their staffs, of course, that's an easier way to deal with a program like this.

And when we got together yesterday morning, they said, you know, we really should try to do something a little bit more meaningful, something better for the group; and frankly, I think that John Wright's point that he spent a great deal of time on yesterday afternoon, yesterday evening, certainly indicates that this group put some time into making at least the conclusion of this presentation very meaningful. I'm happy to be the moderator for the panel. We'd like to hear your reactions now.

We're not here really to answer questions. We're all state employees. We're at the receiving end of many of the mandates, as you are, and I'd like to hear from people present, in 30 seconds or 60 seconds, statements - just reactions that they have which, in part, I'd like to communicate to Russ Train.

MR. SHEEHAN: My name is Kevin Sheehan, and I'm with the New York City EPA. What I'd like to say will be in the form of a comment, but there are implied several questions, so any response from any of your gentlemen will be welcome.

One of my jobs is to implement CETA in New York City's EPA, and as such, I can wear two hats. One - I have to find out how the CETA legislation is really helpful and useful to the professionals in my agency who have environmental concerns. The second hat I have to wear is to find out how the legislation and the social implications of that legislation can be carried out also in my agency.

Now, when I talk to the pros and the engineers and the managers and try to analyze their needs, you know, rightfully or whatever, their needs as expressed to me are often couched in terms that they need very skilled labor to do the job that they are mandated to do, and they need training for the labor that they already have.

And when I look at what that skilled labor means, it really isn't covered by the CETA legislation, as you know, and so I either can decide to employ an individual by using part CETA funds and part city funds and getting a highly skilled individual.

That kind of bothers me when I wear my other hat because then I know that if I do employ, through the CETA program, a disadvantaged individual, I have to end up diverting him from what are strictly environmental concerns, and he gets placed perhaps in a clerical-type supportive position, or in a position that is not recognizeable at all as an environmental-type job; and the interest, by the way, that could be really planted in an individual from the disadvantaged labor pool--the interest in an environmental career, the interest in (perhaps after a little experience) of going on to vocational and adult education training and upgrading his own training so that he can get into a more-skilled position, because he doesn't get into that kind of a position in our agency.

So, I've been trying to think that there's a little bit of a dilemma here, and I think it's been expressed in many different ways by many different speakers. One of the things I've been asking myself is whether or not some of the environmental skilled positions and jobs that have to be done, whether or not the pros or perhaps the academic types could think about breaking up these jobs, as it were, and to take the less-skilled aspects of them and have them performed by the less-skilled labor pool.

Now, I know there are a lot of difficulties and problems with this kind of an approach; but I'm sure, for example, that there are some aspects of an environmental job that a $15,000-a-year man has to do that could be performed by a lesser-salaried person, which would then allow me and others like me to get the disadvantaged labor pool into really environmental-type jobs.

As I say, that's a comment. There are lots of questions in it, and I don't pretend at all to have a fixed point of view on this, but I would appreciate any comments that any of you gentlemen might have.

MR. BECK: Well, I don't know whether this is the appropriate panel really to give a reaction to your question. I know that Bob's done some looking into the CETA funds, and of course, we have, too; but I think that your comments are right on target and very consistent with the points that Bob was pointing out, and thank you for making them. Can we try to make the statements a little bit shorter, because there may be more people who would like to react, and I'd like to give them the time if we're running out.

A VOICE: Now, Monday I asked a question of Mr. Bolton and Mr. Bruner which was--it was dealing with EPA and the likelihood of legislation being passed that will mirror the EPA projects or the Conservation Corps of the 1940s, and I'm new at this, and that's all I've got to offer the people here today--that due to the rapidity in which that type of legislation is to be developed in Congress, it's going to have to be simple, it's going to have to be open-ended, and I think it's going to mirror those types of projects that were set up, and that's all I've got to offer the people here today - spend some time and study those old laws. You can take a little bit from history, and I think we'll be ahead on the game, and we'll be in time. Like Mr. Miller says, timing is the most important thing, and I think that provides the most opportunity for us in the short term.

MR. BECK: Is your position then that with the inevitable emergence of legislation which is going to be making available public service jobs, that EPA should be very open with Congress and make sure--

A VOICE: I think EPA should make our needs known and develop a very good working relationship with the communities that are involved in developing that legislation.

MR. BECK: That's a good point.

A VOICE: I think one of the problems we're going to have to face when we have upcoming legislation which would permit a large amount of money to go into the cities, is the fact that why should we hire, under WIN and under CETA, when we can hire directly somebody who is already technically skilled under these upcoming manpower programs.

Second point - to reinforce Mr. Sheehan - you've got to have job restructuring to permit some upper mobility for the low-level WIN and CETA people.

The third point, and probably most important, is--jurisdictions here have to really consider the transition from the soft money programs to the hard funds. Otherwise, we're going to get into that perpetual job, revolving-door cycle of having poor people come into our agencies, getting fed up when they find out they're no longer going to have a permit and are just back out on the sidewalk again.

And then my last point, and again, I want to talk about affirmative action. I haven't heard any words yet - and it was promised the first day that the Conference began - that the Conference would address itself to that issue, and I haven't heard it.

MR. BECK: Well, I think your first three points are excellent, right on target. The fourth one - I really can't help you with. Is there one more statement? Very good. One more.

A VOICE: I've heard the pesticide situation - and the magnitude of the farmers, the ranchers, in every state. We have a voc ed department in most states, and I'm speaking for Colorado right now. I was sent here to represent Colorado vocational education, so therefore I'm going to speak my piece. Voc ag has a young farmers program and an FFA program that reaches every young farmer in Colorado, I know, and they could help in this large job that has to be done, and I'm sure they could do a fine job, so I would approach them.

MR. BECK: I just want to, in closing, say a couple of things. First of all, I really appreciate what George Pratt and Al Alm and John Ropes and the entire staff have done in terms of pulling together this Conference. I think that it's really given us an opportunity to learn; I think that was the major objective, and I think it's just a wonderful thing that they have done.

I think that the Arizona Department of Health should really be congratulated. They've done an awful lot to make this program a success. Jim Goff, of course, has been very active here, making sure that these people had all the necessary arrangements and accouterments for a very enjoyable time. I also want to thank all the people who worked on the committees, because I'll tell you that I've had as much fun outside of this Conference as I've had in it.

GENERAL SESSION AND WRAP-UP

Robert J. Knox, Moderator
Manpower Development Branch - EPA Region II

George L.B. Pratt
Office of Education and Manpower Planning - EPA

GENERAL SESSION AND WRAP-UP

ROBERT KNOX, Panel Moderator

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MR. LOSTUMBO: Our last panel will be Mr. Robert Knox, whom you've heard about since his name has been mentioned several times the last few days.

As you know, he's the Regional Manpower Officer for Region II, New York, and he's been doing a great job for EPA in terms of utilizing these other mechanisms in attempting to solve some of our problems.

MR. KNOX: Thank you very much Frank. I really had some thoughts about what I was going to say, but since Chris Beck and his panel did such a tremendous wrap-up job for me, there's no way I could add to what they said--it was seven to one.

So, I'm not even going to attempt to add anything that they've done, and I think that they did an excellent job and that they deserve commendations for the way they handled it. They answered a lot of questions and posed a lot of problems. In fact, I've been keeping notes all throughout the Conference so that I could sort of synopsize some of the presentations. But after listening to them, I really don't think there's a need to do any of that.

I do think that, contrary to opinion, we will try to answer a lot of questions. I know that there's still a lot of questions, and people have been asking me about our successes that we've had in Region II, for example. We've been lucky in impacting CETA and in being able to get some mileage out of it.

We've used it and we've worked hard. That's the big secret to impacting CETA. We didn't take a lot of chances; we wrote a lot of the plans ourselves. My staff, Louise Drake, Charlie Tenerella and Eileen Ioannou, did a lot of hard work in writing plans. The key factor to remember is that you're using CETA money for the disadvantaged, underemployed and unemployed, and this is the target group. You've got to design a plan that's going to meet their needs.

Now, usually when we go in and sit down with people at the Department of Labor, we tell them what we can do for them, what we expect CETA to do for them. We're trying to identify jobs for the disadvantaged and also, as someone mentioned, we're talking about doing task analyses of jobs and the restructuring of jobs.

All these things are difficult and most people don't like to downgrade jobs because of the dangers involved. People of lower grades are more difficult to supervise and they don't have the skills or experience. Ironically, if you do downgrade jobs, you stand the risk of having your own job downgraded. No one likes to see engineers doing menial tasks, but a lot of work has to be done, and, through task analysis and restructuring, more jobs can be created for people with lesser skills. You have to negotiate with people; you have to sit down with people and try to convince them that they have a responsibility and, contrary to the things that I hear about this, everybody has a responsibility for the country's problems.

Someone mentioned yesterday that a lot of people, about six-and-a half percent of the entire nation, are unemployed. These people aren't unemployed because they want to be unemployed. I think that people like us, who are in a position to be able to create jobs, to be able to identify jobs and get some people working, have a responsibility to that group.

I've worked in the environmental field all my career--over 20 years--and I started in water pollution back in the times when they didn't refer to it as water pollution. They had other terminology for it.

I'm concerned about the mission and I'm very mission-oriented. I know what the EPA is trying to do. But, of course, I am a minority, so I know that there are a lot of people who are unemployed. And a lot of my friends are minorities, and a lot of them are unemployed; so I recognize that there's an opportunity to impact some things and do a lot of good.

And so, I can get pretty excited about the work that we do, and I'm pretty dedicated to what we're trying to do, and I take my responsibilities very seriously.

I think that, when you go in to talk to CETA people, you've got to talk to them in terms of what their target groups are and how you can meet their needs. You know, we're selfish and we tend to think, well, I need a certain type of person. I've seen plans that are unbelievable. They come out and they say I need this, I need that, and we did this back in the old days under CAMPS, we used to write plans that would train engineers and top-level people and really do a lot of upgrading. Well, they weren't helping the DOL people at all. I don't think that under CETA you're going to get away with that.

I think that the plans will have to be a compromise between some of the things that you want and some of the things they want. You're not going to get everything that you want; you're going to have to trade off some things.

For example, people who have budget cutbacks and want to hire with CETA funds have problems because, as you know, under CETA you can't fill budgeted positions. The Labor Department now is reevaluating its position concerning this inability to fill certain positions.

Now, what if you want to hire an engineer, but you also need to hire laborers and people in other areas? So you can say that, well, through CETA we can hire people at the lower level, people eligible for CETA funding, and then use some of our own funds for hiring the professionals. So, don't hire your typist, don't hire your laborers, and don't hire people like that with your own funds. Use CETA funds to hire them; you can hire your professional people with the limited amount of funding that you have.

This is the kind of thinking that you have to put into the plan. We wrote a plan for the pesticide program that Charlie Frommer mentioned this morning. We'll be submitting that to New York's Manpower Services Council. We're going to sit down and talk with them and tell them how we wrote the plan.

Charlie mentioned a hard-core group of unemployed--a hard-core group of people who are difficult to train. We recognize what the environmental control people are looking for and we also understand what the Labor people are looking for, so we sat down and we analyzed what the Cornell Extension Service wanted to do. We looked at what they wanted to do and what the EPA is trying to do, and we tried to work something out because we understand FIFRA as well as CETA.

Just to digress for a second, there is a shortage of environmental manpower development specialists who can understand what the requirements are of the environmental side on one hand, and what the requirements are of the labor side, on the other hand. These specialists must also be able to balance the two, mesh it together, and come up with workable programs.

So, anyway, this is what we did in New York. We looked at their program and then we rewrote what we wanted to do. What we do is to just simply ask people to tell us what they want to do, how they want to run their program, and the number of people they need and that sort of thing and then come up with some figures. Then we try to put it in Labor Department language and in the terms of CETA.

Well, with New York, about eight percent of the people don't need a great deal of training and probably could take a manual home--a home-study type of thing--and, after a short while, be able to come back and sit down and take a certification examination. New York felt that they really didn't need funding for people who wouldn't be difficult to train.

But there is another group. This includes the field-hand type, the hard-core tenant farmer, people who have language barriers, people who have limited educations.

This, they felt, would represent about twenty percent of the people. They also felt that this group would need funding because of the necessary support services and all the other things that CETA offers such people.

So we wrote the plan up and we were very honest in the plan. We talked in terms of what EPA was putting up. The EPA, in this case, through a pilot effort, put up $126,000, which is being used throughout the entire Northeast region.

Also, the Cornell Extension Service was throwing in about $100,000 for the instructors that they would be using through the extension service.

Then we asked for $100,000 in CETA money to impact this hard-core group, which includes about 6,000 farmer-type people. Of this group, we're looking at tenant-farmers, migrant farmers--the people who really need help. We're not going to ask for money from CETA for people who don't need help.

This is part of the effort in being sincere. You've got to be sincere with the people who really don't need it. So, we have to try to find ways to use our own resources to see how we can get to the groups who need the help. And, by the way, all our plans are submitted on this basis. We're only trying to get funds through the Labor Department from CETA for people who in fact really do need the help.

Under CETA, you also have the four percent Governor's discretionary money, and there you might be a little more flexible and you might get away with some things that you wouldn't be able to get away with normally in CETA. We initially go in for the four percent money.

I don't think that there's enough money at the state level to really do the job. Ed Wagner mentioned that a lot of talk has been going on here at the regulatory agency level, but you and I know that the people who are really responsible for pollution control and are doing all the work are at the operation agency level. We're talking about the people who are not really employed by the regulatory agencies, but the people who are employed at the local agencies who are, in fact, trying to control pollution.

In fact, I think Jean Schueneman mentioned yesterday the high-pressure boiler operators who represent one of the biggest polluting groups in air pollution. They aren't properly trained and have never been to adequate training programs. You have reservations from the people themselves about even taking training, so this group is really hard to get to.

You can try to design all kinds of training programs for them and, many times, they don't really want to be trained. They look at it and, like the Labor Department people, they say, "What's in it for me?"

Then, if you train them, they're going to be asking for a raise and all that sort of thing. You also have a union to deal with. Ed Wagner has a large program, he has a lot of people in New York City, and he has a union that is just out of this world. And dealing with all that type of thing is really quite difficult.

So, I think you need environmental manpower development-type people who understand all these situations and who possibly, I would say, have a background in pollution control and abatement, and at least a good understanding of what the EPA is all about and what it's trying to do. Of course, they also have to be people who undoubtedly understand CETA and the world and national problems, because when you talk about using national money, you're talking about national problems. So, if you're going to take on the responsibility of decentralized monies, you're going to decentralize responsibilities. So you're talking about the fact that, if a local community or state thinks it's important enough to fund the type of program that you're bringing to them, they'll fund it.

You say, well, the state people and the local labor people say, we have all these social programs that treat ex-offenders, drug addiction, and a lot of social problems. We have the WIN programs that are designed for people who are on welfare, the Job Corps, and these programs are much more important than the environmental area.

Well, I don't agree with that, as you know. I think that what we're doing is just as important as any social program. Actually, it is social, since every one pollutes. We don't know the number of people who die annually because of air pollution, but we know that it has a sizeable impact. We also know that there are a lot of problems with the water supply--enough to scare people to death. Dan Rather's trying to scare everybody. But we know there are a lot of problems around, and I think it's incumbent upon people like ourselves to go out and be heard by people who have the funds and who can assist with the funding. If you can't be heard, then I would say that, if you don't think that what you're doing is important, you probably shouldn't be in the game; you shouldn't be involved in pollution control.

If we can't compete with the other social programs to get at funds, to fund programs that we think are important--what the hell could be more important than water supply? What could be more important than pesticides? And what could be more important than growing food when you have a worldwide food shortage?

And when we go and sit down and talk to people, we take our program person with us, we take a state person with us, and we sit down and talk to Labor people and we let them cry crisis. "Look, guy, if you don't fund our program, the whole state's in trouble." And this is the only way to do it.

Now, there's a fellow here from New Mexico who mentioned that--that you've got to use--we don't have any chits--I'm afraid to even say that word. We aren't pulling those, but we do lay it on the line to them. We let them know that the state's going to be in trouble unless they do a good job. We let them know that we can, in fact, identify a lot of jobs. We want to see people employed.

And, frankly, I believe in manpower. I believe in it as much as I believe in my Baptist faith, and I believe in that. I believe in manpower. I believe that there are enough jobs in this country for everybody to be employed. I'm always amazed that there's so much unemployment--when I go visit a sewage treatment plant, you wouldn't believe it. They have every man on the shift working 12-hour shifts, every man in the plant, and they are working six days a week, 12 hours a day, and everybody is walking around there dragging, no one is doing a decent job. They probably could use at least twice the number of people they had working in the plant, and this isn't unusual. This goes on and on and on. The average operator working in a sewage treatment plant makes two-to-three thousand dollars annually in overtime, So if there's that much overtime, there must be a lot of jobs out there.

You know, Jean Schueneman also mentioned the fact that a lot of the states actually cut back on the number of people they should be employing because they don't want to be hassled by the EPA. We approve construction grants where we know that they should have more people employed in the plant than what they identify.

Now, those are the kinds of things that we've got to go after in order to get the number of people employed who should be employed, and I've got a theory about that. Everybody doesn't agree with it. I was telling Ed Wagner and he didn't agree with it either, but it goes like this:

If you have a situation where you have four people working in a plant and, of that, you only have two of them who are doing a decent job anyway, then I say let's increase the number of people there and have maybe six people working at the plant. Then we still have the same half who aren't doing a decent job, but at least we have three who are doing a decent job and we're ahead of the game by at least a fourth. I believe that in any situation. The Marines have a saying about how you only need a few good people, and that's all you ever get--a few good people. So you've got to identify the few good ones, and it's not the easiest thing in the world. How do you identify the people who are good? You have to get a larger number of people to make sure that you have enough good ones among the people that you have there.

This is the kind of thing I mean. You've got to be resourceful when you go in to assist people and write the plans. I normally don't like to take too many chances with writing plans; I'd rather write them myself. Of course, when you start to get down to the local level, you can't go around writing all the plans.

Someone said, well, how about having a guideline for writing plans? I don't think that you can do that. I've worked in Region IV in Manpower Development in Georgia, Mississippi, and places like that. There's all the difference in the world between Mississippi and New York State. It's just that they're not the same thing. You have to write a plan for the specific community.

Now, we write plans for Puerto Rico. When I write a plan for Puerto Rico, I feel as if I'm in Puerto Rico and I understand the needs, and I have a feeling for the problems that are in Puerto Rico. This is the kind of feeling that you have to have because the people who are going to review that plan are native people--they're natives of the state or the commonwealth or whatever, and they're going to look for things that people are familiar with.

You can't hang up here and say, well, we're engineers and we're only concerned about our needs, and we're not going to write plans for laborers' needs and that sort of thing.

There are not enough training funds around--there's not enough manpower around to do the work. There's a shortage of manpower in the environmental area; yet everybody's unemployed. Isn't that amazing?

Well, I feel that there are not enough funds around to do the job, and, really, you're going to have to go strongly toward the local communities. I think each local community, like the states, is going to prioritize environmental manpower, people and training. And, incidentally, I think that first of all, there's a manpower shortage in the environmental area, and secondly, training must be an important component of manpower. But you've got to get the people before you can train them. So, first of all, you've got to get people on, and then the second thing is to train them. You say, well, if I go after people under Title II, but I can't train...well, don't be concerned with that. Just get the damned people on board; then figure out a way to get them trained. Everybody has some kind of in-house training program; everybody has some kind of on-the-job training program. We know it's not adequate, but you have different resources for developing programs. Harold Jeter and Frank King, for example, are developing in-house programs.

You may not always have elaborate-type programs to get people trained. They're working on decentralization. There's enough work to be done involving community colleges, universities, colleges, extension services, continuing education--there's enough work to involve everybody. Then maybe we'll even put a dent in restoring the environment in this country.

So I think that what we're saying is that we've got to work hard. It can be done, and you've got to believe it. YOU have got to believe it. You know that Eastern commercial about believing. You've got to believe; and I, for one, do believe that what we're doing is not only the best thing in the world; I'm convinced that manpower development is important, with training certainly an important component of manpower. You can hire a sizeable number of people without properly training them.

We're here to think about the problem and try to identify it. Once we have identified it, we try to come up with some answers to the problem. My staff gets very annoyed with me occasionally because it doesn't take a hell of a lot of talent to talk about problems--to be a fault finder--and it doesn't take a lot of skill. I do believe that it takes a lot of talent to come up with solutions to problems, so I don't like to see people wasting their time identifying and talking about problems. I'd rather see them talking about solutions because I can come up with my own problems.

I'm always talking about my wife. Once I got stuck out on a highway late at night, and here I am with a flat tire, no spare, and it's pitch black--you can't see a thing--and I'm waving a flare out there to try and flag someone down while she's giving me a hard time because I don't have a spare.

She's adding to my problems and I don't need that. I need her to come up with some answers. I need her to try and help me figure out how in the hell we're going to get out of here and get home.

I sincerely feel this way, that there are problems, you don't have to look for them. People will bring them to you. You need people who can come up with solutions. You need people who can be resourceful. Take the education that you have, how you got through school, how resourceful you were when you didn't have funds to get through school, and you didn't think you were going to get there; but you figured out ways to do it. When you really think about it, Americans are pretty resourceful people, and we can usually come up with answers to things.

I think that we should steer ourselves in that direction, to try to come up with solutions, although no one can give you any magical way to find solutions to meet all your problems.

But we've managed to hang in there when sometimes things looked so dark--I won't say black--but looked so damned bad you didn't know if you were going to be able to hang in there or not. But we've been managing to hang in there over the years; and I think that we really haven't even put too much of a dent. We've done some things, and we've had some successes; but there's still a hell of a lot of work to do. We still need all the resourcefulness and all the ideas. Edgar Bernard, my counterpart up in Region I, always accuses me of stealing anything--anything anybody says--and I admit I'm probably the biggest thief in that regard. I'll steal any idea, use anything we can to get the job done.

Malcolm X once said, "If you're not part of the solution, you're part of the problem." I don't believe in being part of the problem. I think that we all should be part of the solution. And I think if we all concentrate our efforts on finding solutions to our problems, then we will be at least somewhat successful in what we're trying to do.

I'd like to, at this time, break off and try to entertain a few more questions; and if anybody has any solutions to some of the problems we're talking about, we'd be interested in hearing them.

I'm here. John Ropes is still here, and some of the other panel members are still here; so maybe there are some people who didn't get their questions answered, and maybe we can still answer the questions. But I'd like to quit right now.

MR. COAKLEY: Bob, I think you'd make a good replacement for Henry Kissinger if he ever needs a replacement. In the way of a question, one of our state people was asking me this morning: What is the status of national negotiations in Washington toward getting the Labor Department to be more receptive to the environmental priorities, so that we don't necessarily have to fight the battle 50 times over?

MR. ROPES: Well, as you all know, we've worked in the past with interagency agreements with the Department of Labor, starting back in 1969, and these interagency agreements spell out a relationship. This is the last one--it expires this coming June. Hereafter, the relationships are all at the local level, so we're working now on an interagency cooperative issuance that will spell out what the Labor Department assistance will be and what our needs are. The issuance will go from Washington down to the regional level, which will develop a formal working relationship between the EPA manpower people and the DOL manpower people.

Perhaps this could be even parlayed further by getting Health and Education to sign it and bring in voc ed; and those issuances then will go on down to state employment services, state prime sponsors, and other DOL-related agencies as well as the Departments of Public Instruction if the Office of Education will sign a similar agreement.

So, it will be a formal working relationship just sending kind of a goal and policy and idea down to the regional and state levels for encouraging local prime sponsors and others to work together.

It fits very nicely with what John Wright mentioned this morning: to work together and to have them recognize some of our problems as well as our recognizing theirs.

MR. KNOX: The gentleman here?

MR. QUINN: Quinn from Colorado again. My director of vocation education will probably wish I had stayed home after I get through opening my mouth, but I hope to be able to have the chance to offer a solution to some of the problems; and I'm offering vocational education in Colorado to help your problem.

MR. KNOX: Thank you very much.

MR. WRIGHT: Mr. Knox, you seem to be pretty knowledgeable about the environmental problems, and I catch the good knowledge of how the Labor Department thinks. And I'd just like to ask you if you think it's time to attack the sacred cow that only Labor can manage manpower development funds?

MR. KNOX: Well, I hadn't thought about it too much, John. And I tend not to--only because I'm the kind of person I guess who's committed to work within the structure. Our efforts have generally been designed to work within the framework of what was there. I think you heard quite a bit of that talk. Bolton, I think it was, Mr. Bolton mentioned work within the framework of what was there.

I think that there's room for a great deal of change. I certainly agree. I think there's need for it, but I don't want to spend a lot of energy thinking about the need for changes when I really put all my effort and all my energy a hundred percent into what we do and how you work in the framework of what is there.

MR. LOSTUMBO: To make one additional comment to that, as John just described, our attempts at the national level--it really takes the type of dedication and motivation that Bob has exhibited, not only at the regional but at the state level as well, to really make it work; and that's what's most important.

MR. KNOX: Yes, sir?

A VOICE: It would be useful for those of us at this Conference if we had some kind of list of people on state level and local level who are in vocational education and health education, and who are handling manpower programs on the state level and federal level.

MR. KNOX: I think, Kevin, that's in the package that was given out to you at the meeting here.

MR. ROPES: No, it really wasn't; but Bob Knox is going to get a ton of stuff next week, and he'll be sending it all out to the participants.

MR. KNOX: Helen?

MS. WIETZ: I'm Helen Wietz, Manpower Training Group in Seattle, Washington. I'd just like to take this opportunity to thank my regional people for being here. I think that if this Conference has done nothing else, we've gotten to know each other, and talk to each other. I think we need each other, and I think we can help each other, and I just want to thank them.

MR. KNOX: Thank you, Helen. Mr. Schrader?

MR. SCHRADER: Yes, Bob, a point of personal privilege. I take great pride in that statement that was made at lunch about you and your accomplishments, and I won't bore this group with that story of that airplane ride from Atlanta to Mississippi you and I took many years ago; but it's good to see this happen. To borrow what they say about Jerry Ford: "You've come a long way, baby." Bob, you've come a long way, and you've got a long way to go. The future's yours.

The thing that I--aside from that statement--I've heard the words equal opportunity employment and affirmative action. We do have a state CETA plan, and that state plan has built into it the monitoring of our affirmative action officers in each state agency, and it will be monitored by them. But more importantly, as we go out and use this CETA tool to provide entry-level training and employment, we're going to be putting the pressure on public works department directors and heads of county agencies to bring in people at more than just the entry level to bring about a more reasonable, equitable distribution of those jobs.

MR. KNOX: Thank you very much, Dave.

MR. LOSTUMBO: Bob, I'd like to make a comment on what John Wright asked about. While CETA does not address upgrade training, I think DOL is becoming more aware of the problem, and a forum such as this one will greatly assist them in finding some solutions.

MR. KNOX: Okay. I'm going to yield and turn everything back over to Frank Lostumbo.

MR. LOSTUMBO: Before you go, I'd just like to make a special recognition to John Ropes and his staff for the fine job that they've done in pulling this Conference together; and I'd like to yield to Dr. Pratt to make the final, closing statement and wish you all well. Thank you all very much for being very helpful.

DR. PRATT: Continuing just a little bit, before you leave, let me address myself to your questions about upgrading under CETA.

That's something that is under active discussion in terms of the guidelines and regulations between our Office and the people in Labor, so it's not something on which there is unanimity. It is a policy now, and it is a priority situation, and there are some awfully good heads in Labor who are working actively on this to try to get more up the career ladder, and the relationships and the combinations that you get from an entry-level upgrading and public service employment-type matrix.

I don't have anything to add except to say, thank you very, very much. I appreciate so much the optimism that I think we're winding up on. While I was listening to Bob Knox talk, I thought of the story of the fellow who had twin sons, one of whom was an inveterate optimist--like Bob is--and one who was a pessimist.

So, he thought he would teach them a lesson. For their birthday, he got the pessimist every kind of toy he could think of, and he was really downcast. He said, "Why are you sad?" And he said, "Well, this stuff's going to break. I've got the responsibility for looking after it. My brother is going to use some of it and I may not want him to. I'll lose it, it'll wear out, and I'm just really depressed."

For the optimist, however, he set out a burlap bag full of horse manure, and the boy was really tickled. He was running all around the house, whistling and humming and looking behind the barn and everywhere. The father asked, "What do you have to be so pleased about?"

He replied, "Dad, I've got a pony around here somewhere. I just haven't found it."

I think that we've got some ponies around here, and I want us to get busy and find them.

Thank you so much for being here.

Program

SUNDAY — DECEMBER 8, 1974

1:00 — 7:00 p.m.	Registration	SAFARI CONVENTION CENTER
4:30 — 6:30 p.m.	Reception	

MONDAY — DECEMBER 9, 1974

8:00 — 9:00 a.m.	Registration	
9:00 — 9:45 a.m.	General Session	James D. Goff, Moderator
	Welcome	Arthur Vondrick
	Goals of Conference	Alvin L. Alm
	Opening Address	Clyde D. Eller
9:45 — 11:30 a.m.	Panel: "MANPOWER IMPLICATIONS OF FEDERAL ENVIRONMENTAL PROGRAM STRATEGIES"	Francis J. Lostumbo, Moderator
	Air	Frederick W. Whittemore
	Pesticides	Wendell McElwee
	Solid Waste	Joseph Bahnick
	Wastewater	James E. Warren
	Water	Jean J. Schueneman
11:30 — 12:00 noon	"SELECTED ENVIRONMENTAL LEGISLATION: MANPOWER IMPLICATIONS"	Robert G. Ryan
12:00 — 2:00 p.m.	Open Lunch	
2:00 — 3:20 p.m.	Panel: "HOW ENVIRONMENTAL MANPOWER NEEDS CAN BE MET THROUGH CETA"	John M. Ropes, Moderator
	Overview	Richard E. Bruner
	Discussion	George Chartrand
		Shirley Sandage
		Fred C. Bolton
3:20 — 3:40 p.m.	Break	
3:40 — 5:00 p.m.	Panel: "PROGRESS REPORT ON UTILIZATION OF CETA"	William F. Hagan, Moderator
	National Survey	Darold E. Albright
	State Agencies: CONNECTICUT	John R. Wright
	NEW MEXICO	George A. Kinias
	Local Agencies: Gary, Indiana	Chris Beck
5:00 — 6:30 p.m.	Reception	
6:30 — 8:00 p.m.	Dinner	
8:00 — 9:00 p.m.	Keynote Speaker:	Arthur Vondrick

TUESDAY — DECEMBER 10, 1974

9:00 — 10:40 a.m.	Panel: "UTILIZATION OF VOCATIONAL AND ADULT EDUCATION FUNDS"		
			Darold E. Albright, Moderator
	Federal		C. Kent Bennion
	State:	COLORADO	Roy Gillaspy
		IDAHO	Robert F. Crabtree
		MINNESOTA	David McCullough
		OREGON	Howard W. Brock
10:40 — 11:00 a.m.	Break		
11:00 — 11:50 a.m.	Panel: "UTILIZATION OF STATE PROGRAM GRANTS"		Chester J. Shura, Moderator
			Jean J. Schueneman
			Edward F. Richards
			James A. Mart[illegible]
12:00 — 1:30 p.m.	Luncheon		
1:30 — 1:50 p.m.	Luncheon Speaker: "NEW DIRECTIONS IN EDUCATION AND TRAINING"		
			George L.B. Pratt
2:00 — 2:50 p.m.	Panel: "STATE TRAINING CENTERS — 109 (b)"		John L. Coakley, Jr., Moderator
	VIRGINIA		Eugene T. Jensen
	IOWA		Michael Crawford
	IOWA		William M. Baley
	IOWA		Charles C. Miller
	COLORADO		Jo Elen Zgut
2:50 — 3:40 p.m.	Panel: "STATE LEGISLATED TRAINING CENTERS"		Franklin J. Agardy, Moderator
	CALIFORNIA		Robert Daigh
	CALIFORNIA		Charles W. McElroy
	IDAHO		Robert F. Crabtree
	ILLINOIS		Ernest C. Bennett
	MAINE		Arthur A. Baker
3:40 — 4:00 p.m.	Break		
4:00 — 5:00 p.m.	Panel: "RECENT DEVELOPMENTS IN NATIONAL PROJECTS"		
			George L.B. Pratt, Moderator
	Direct Training		Francis J. King
			Harold Jeter

WEDNESDAY — DECEMBER 11, 1974

9:00 — 10:20 a.m.	Panel: "STATE REACTIONS TO FEDERAL PROGRAM STRATEGIES"		
			Chris Beck, Moderator
	IOWA		Charles C. Miller
	IOWA		Charles Frommer
	NEW MEXICO		Robert H. Lounsberry
	NEW YORK		William R. Bunner
	New York City		Edward O. Wagner
	OHIO		John R. Wright
10:20 — 10:40 a.m.	Break		
10:40 — 12:00 noon	General Session and Wrap-Up		Robert Knox, Moderator
12:00 noon	Adjournment		George L.B. Pratt

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